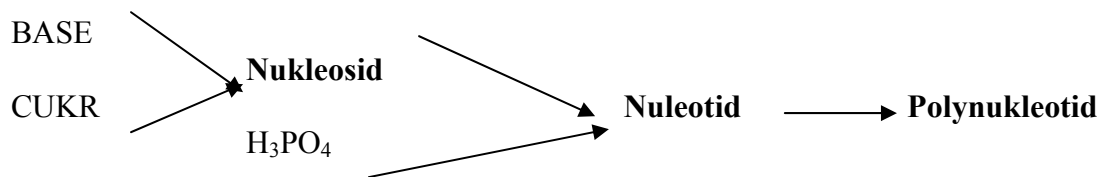


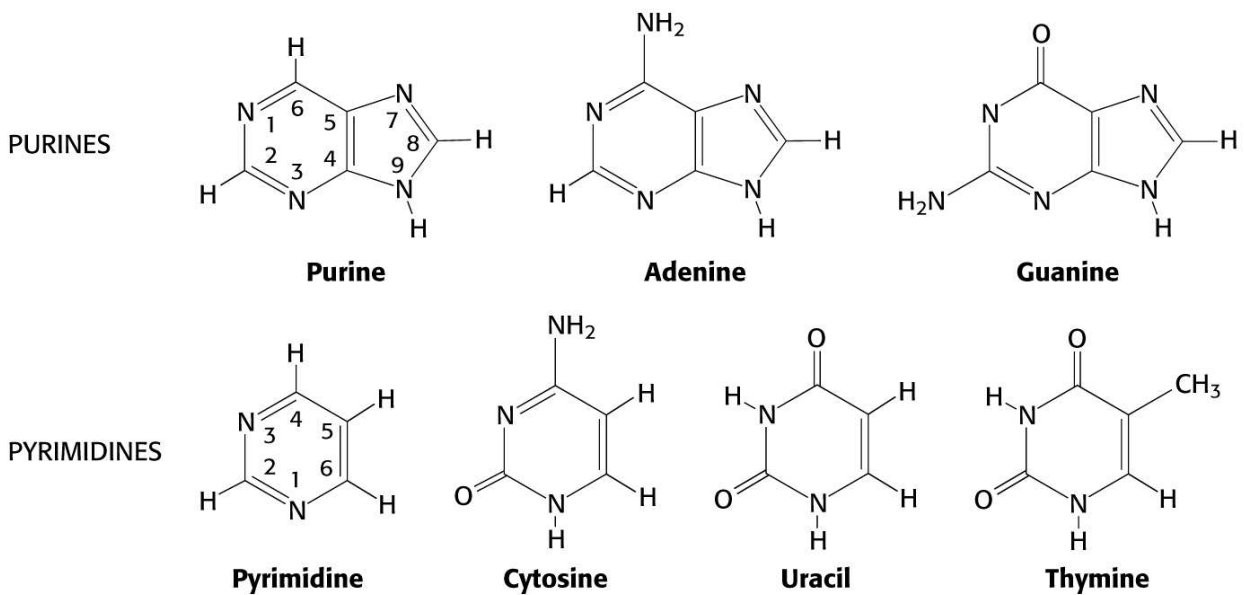
NK

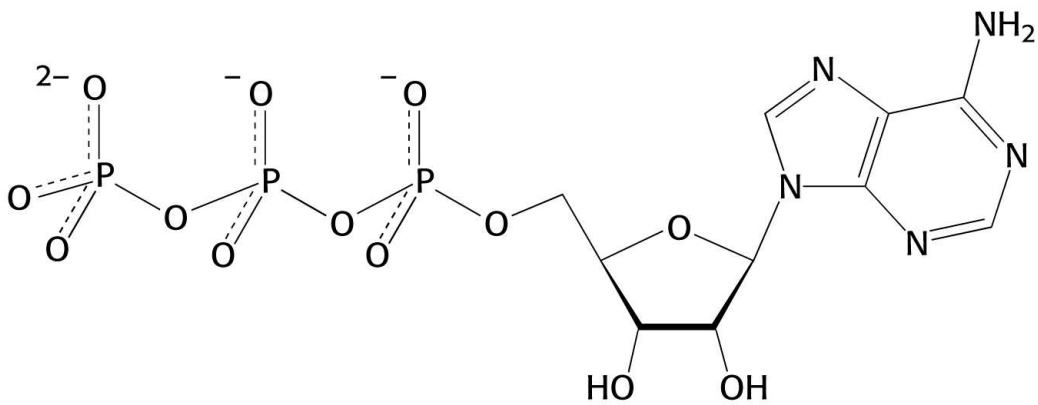
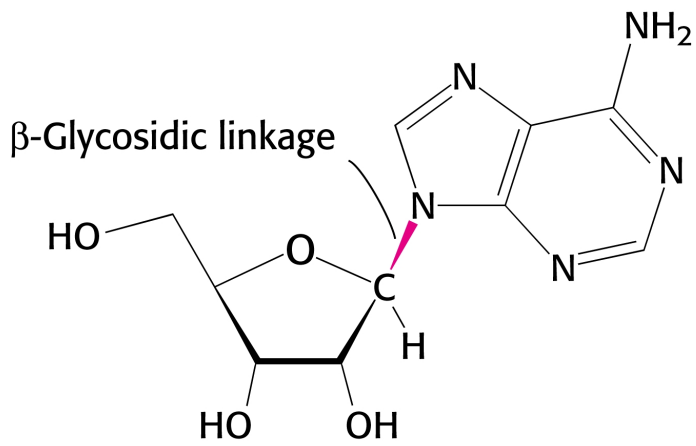
Složení :

- Dusíkaté báze – purinové, pyrimidinové
- Sacharid – ribosa, deoxyribosa
- H_3PO_4

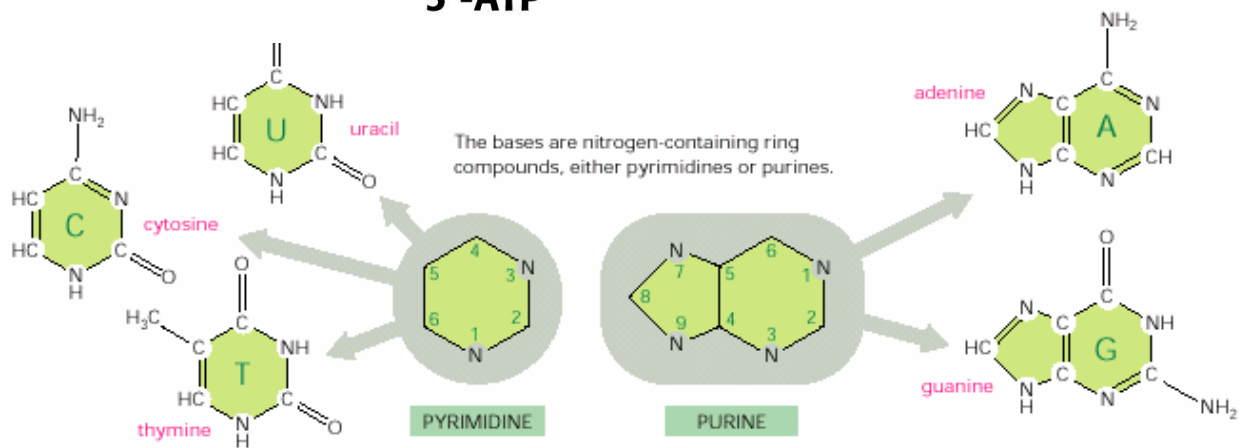


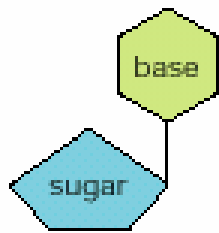
BÁZE



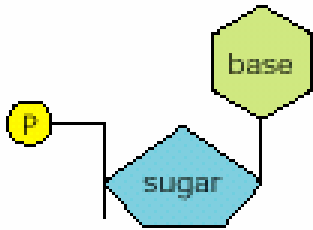


5'-ATP

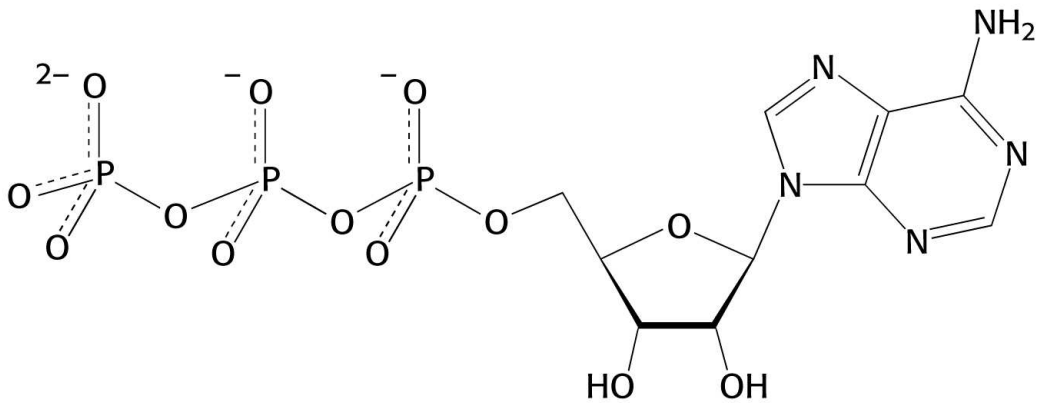




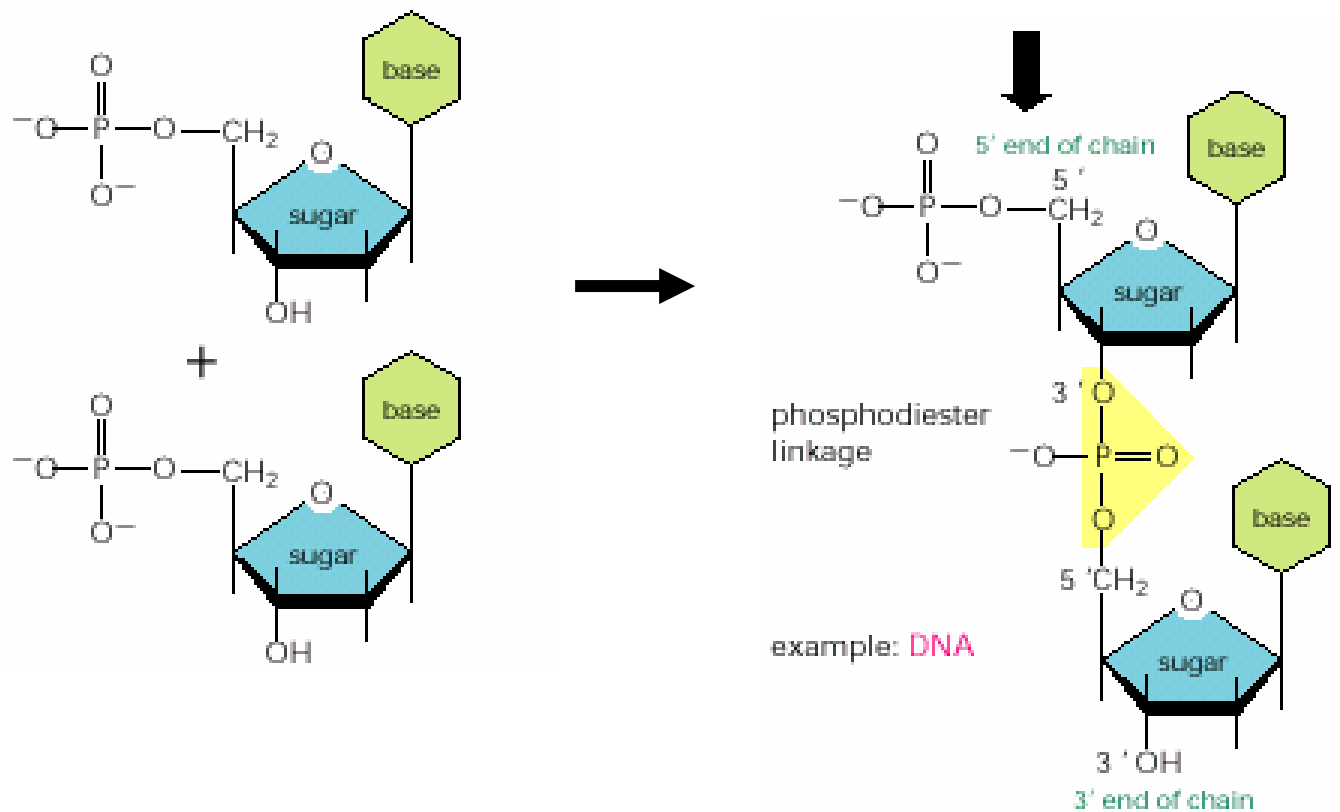
BASE + SUGAR = NUCLEOSIDE



BASE + SUGAR + PHOSPHATE = NUCLEOTIDE



5'-ATP

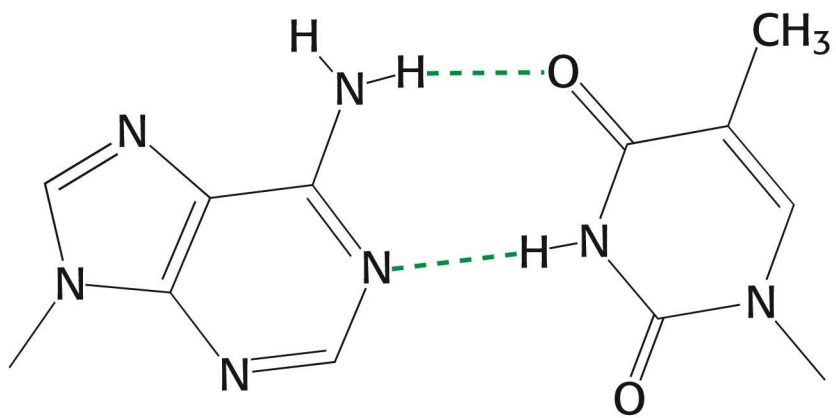


STRUKTURNÍ ÚROVNĚ

Primární – sekvence

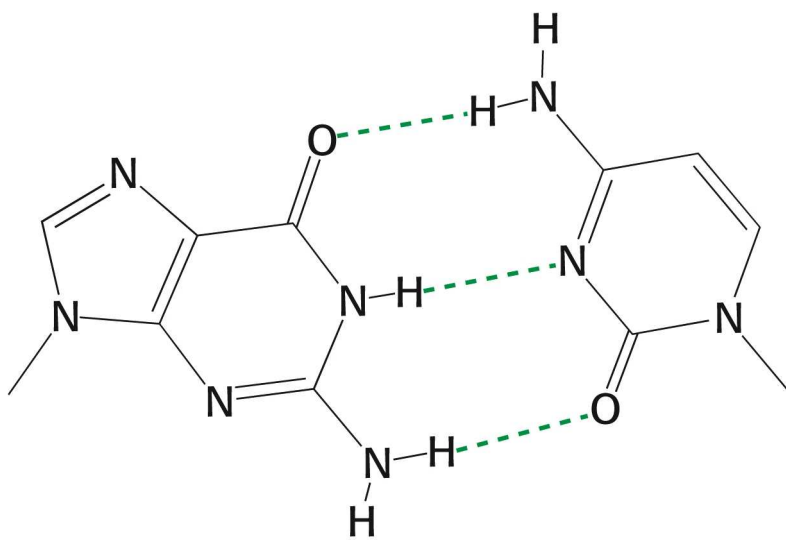
Sekundární

- Chragaffovy pravidla – poměr bází v DNA
 $A+G=T+C$ $A=T$ $G=C$ $A+C=G+T$
 - Donohue – báze v tautomerních ketoformách
 - Franklinová –RTG difrakční analýza
- Watson, Crick (1953) – dvojšroubovice



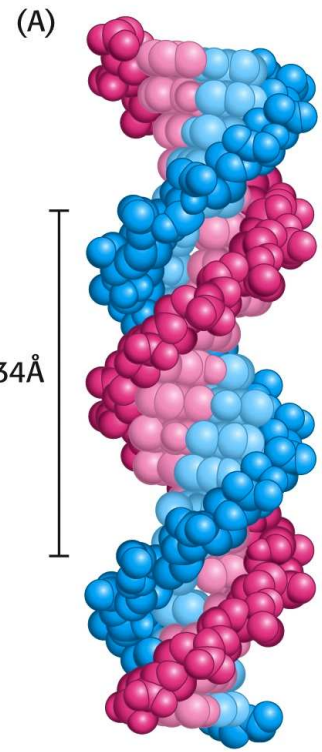
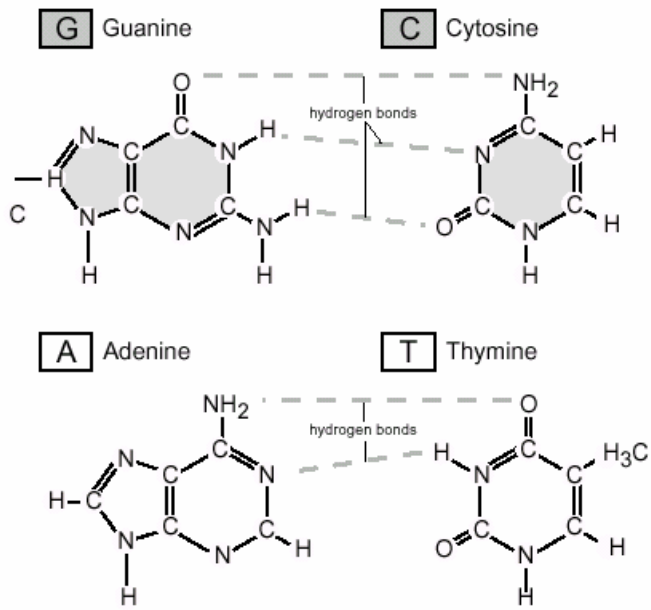
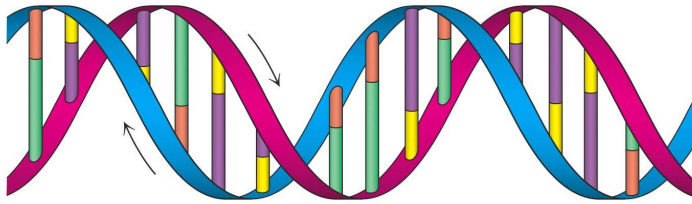
Adenine (A)

Thymine (T)

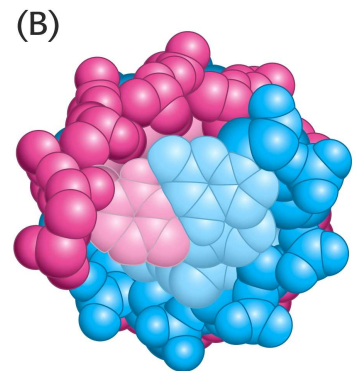


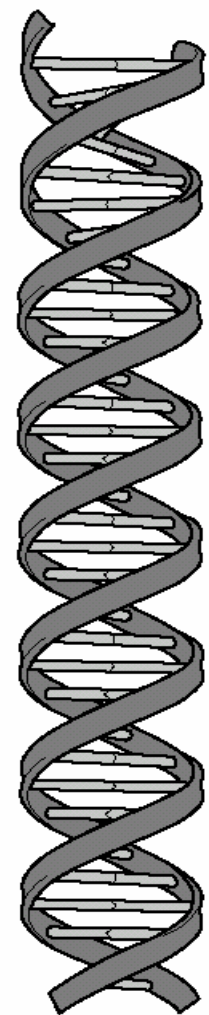
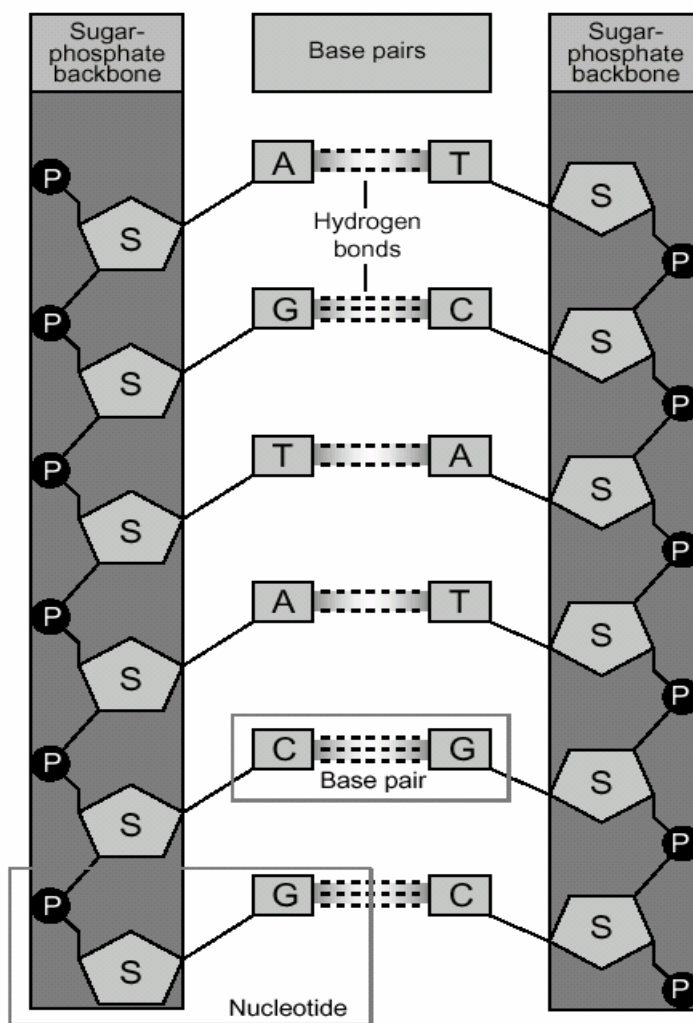
Guanine (G)

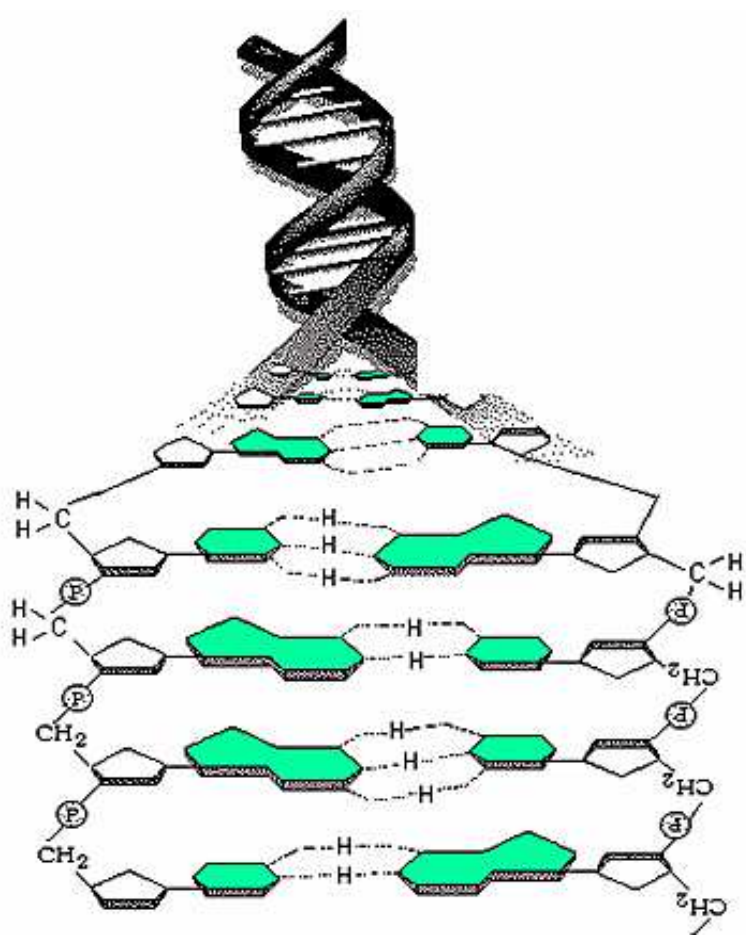
Cytosine (C)

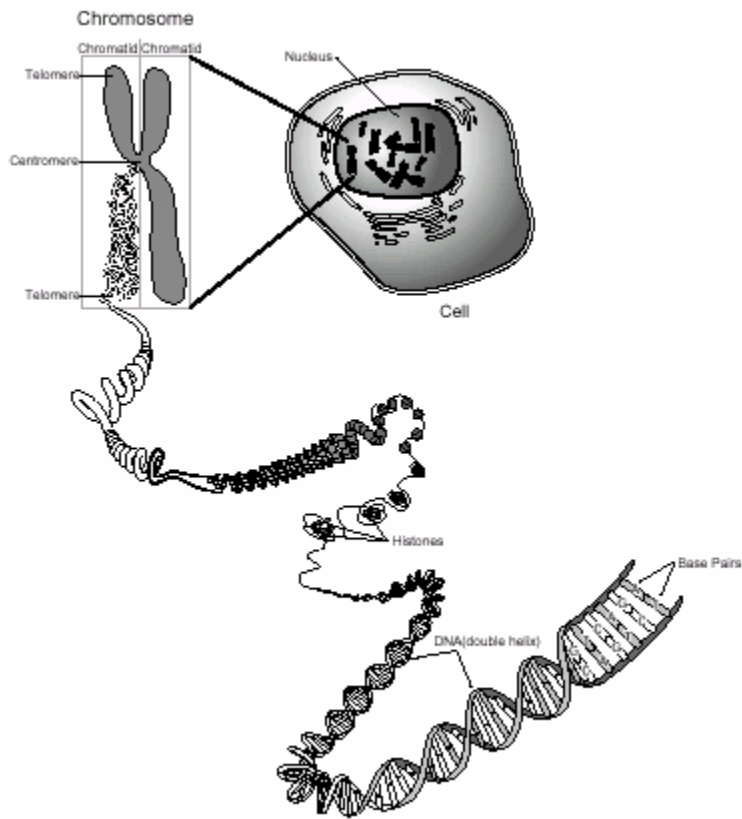


Prostorový model DNA – pohled z boku (A) a shora (B)

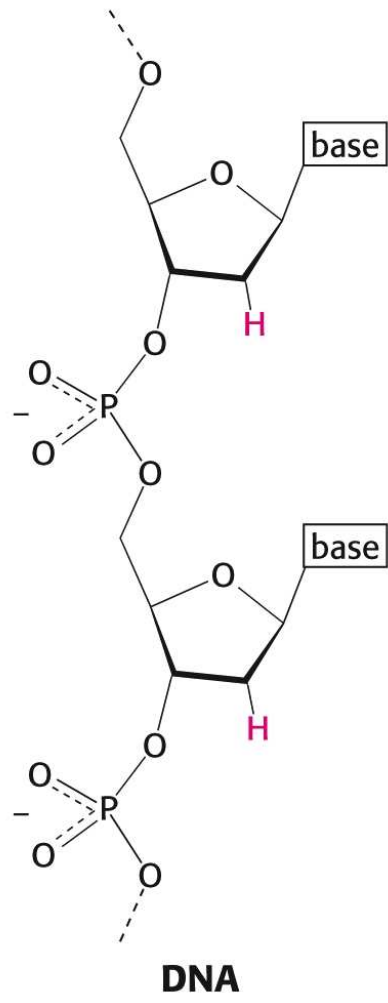
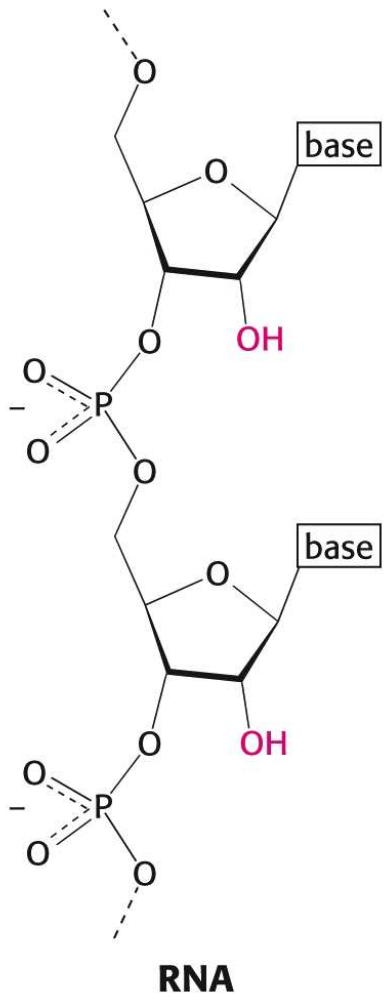


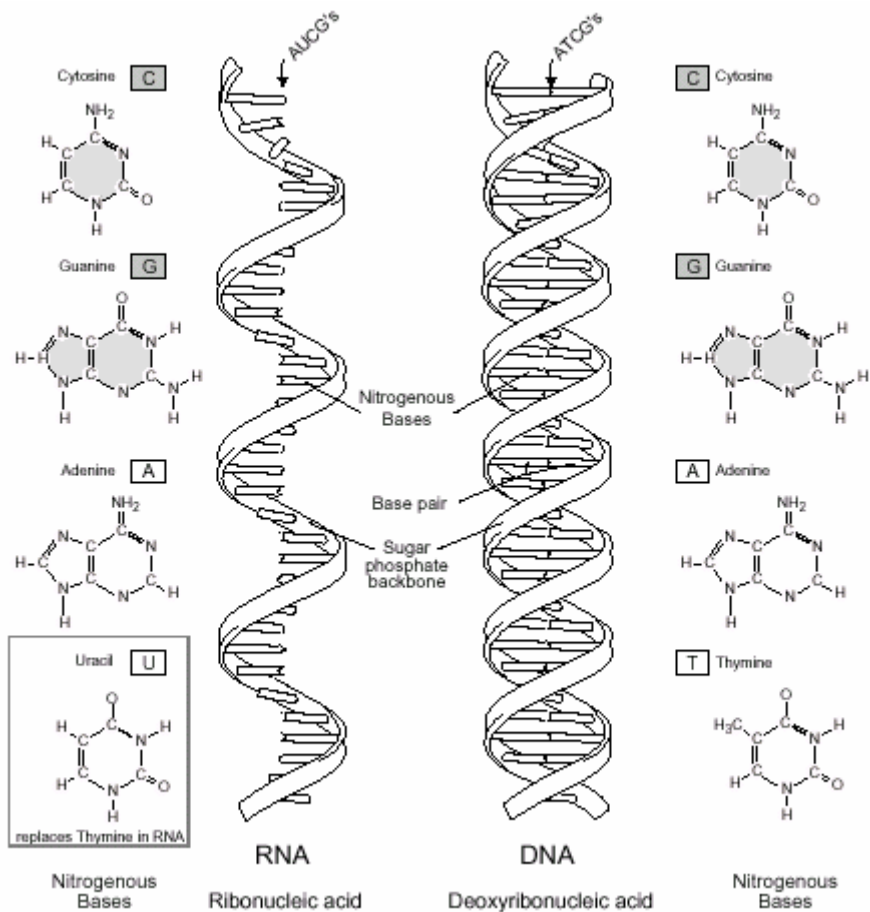






RNA



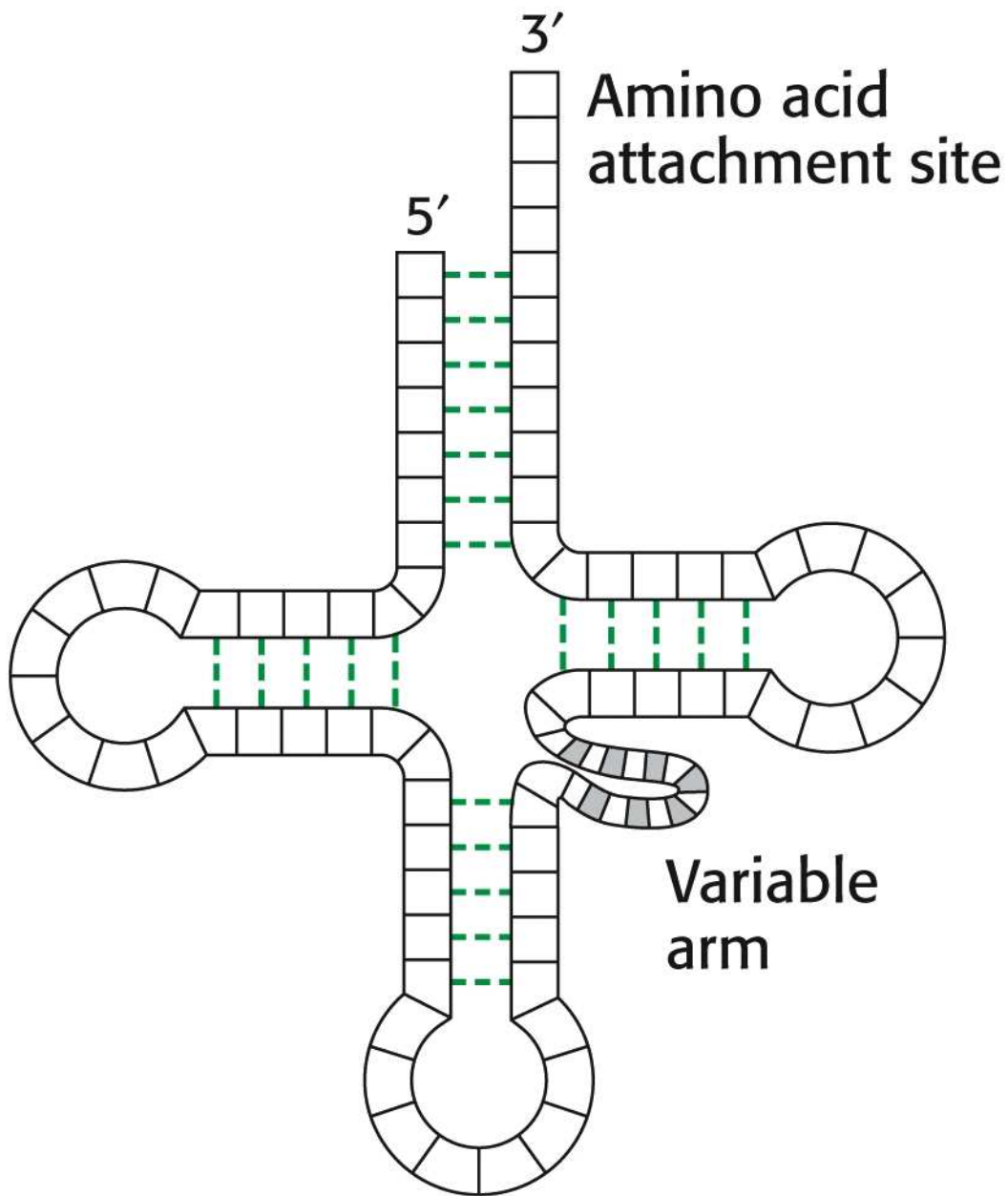


Formy RNA

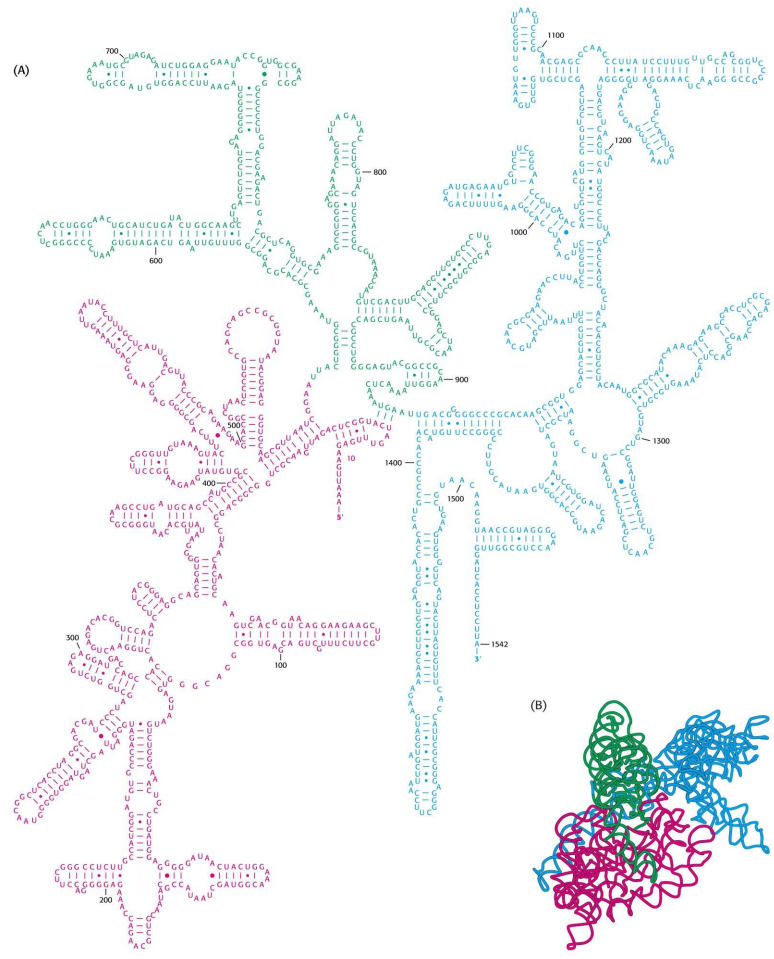
- mRNA – mediátorová, messenger, - informační – 5-10 %
- rRNA – ribosomální – 80 %
- tRNA – transferová, přenosová – 10-15 %
60 tRNA

TABLE 5.2 RNA molecules in *E. coli*

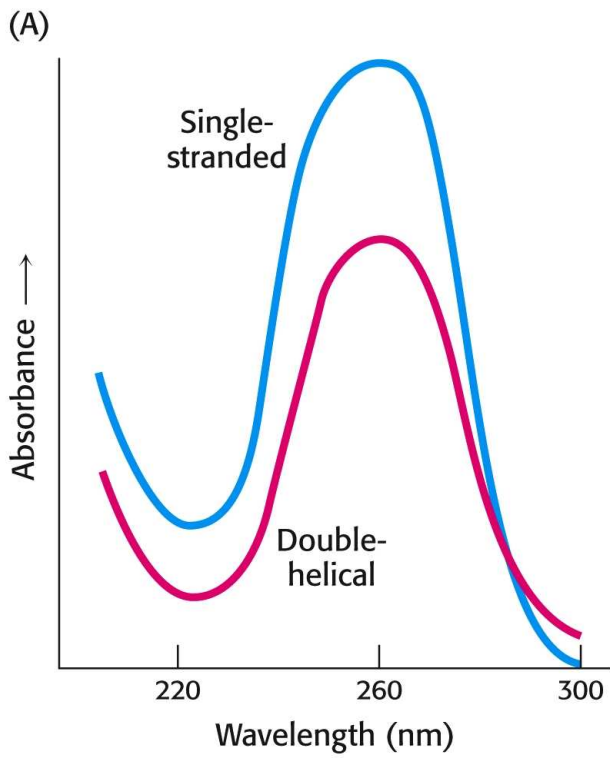
Type	Relative amount (%)	Sedimentation coefficient (S)	Mass (kd)	Number of nucleotides
Ribosomal RNA (rRNA)	80	23	1.2×10^3	3700
		16	0.55×10^3	1700
		5	3.6×10^1	120
Transfer RNA (tRNA)	15	4	2.5×10^1	75
Messenger RNA (mRNA)	5		Heterogeneous	



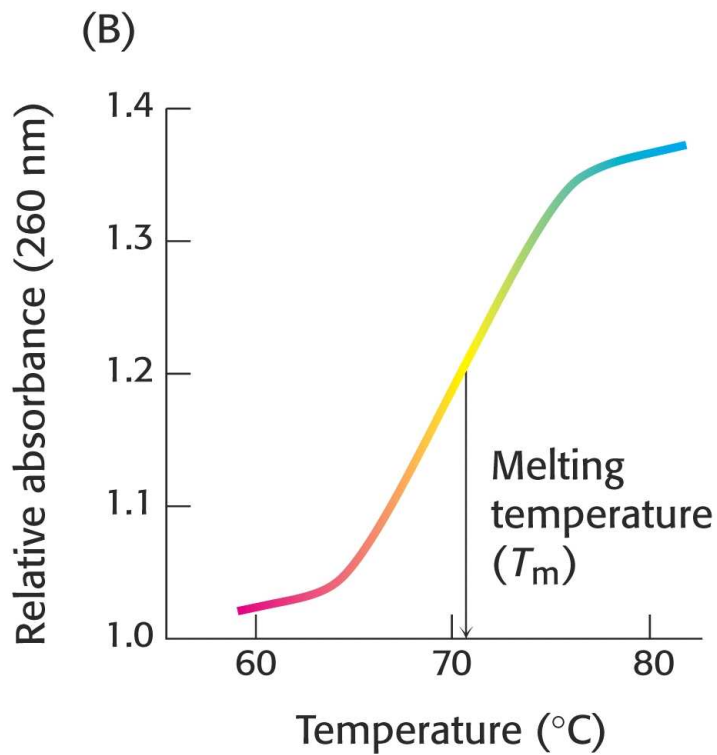
tRNA – jetelový list



rRNA



Absorpční spektrum DNA



„Denaturace DNA“

