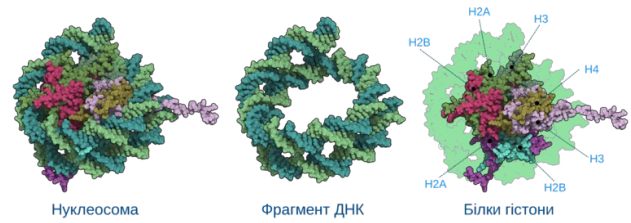
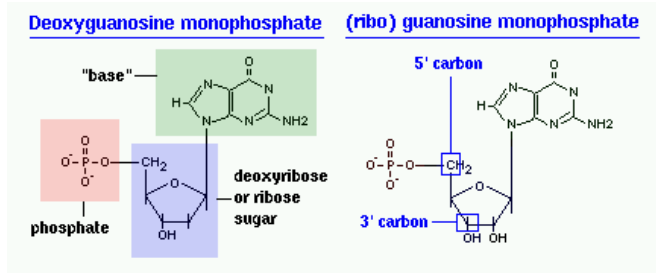


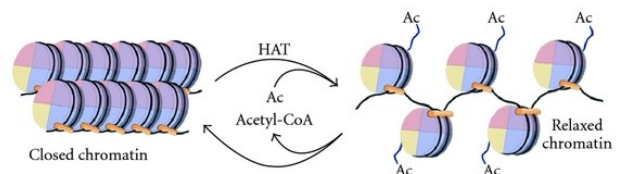
Nucleosome



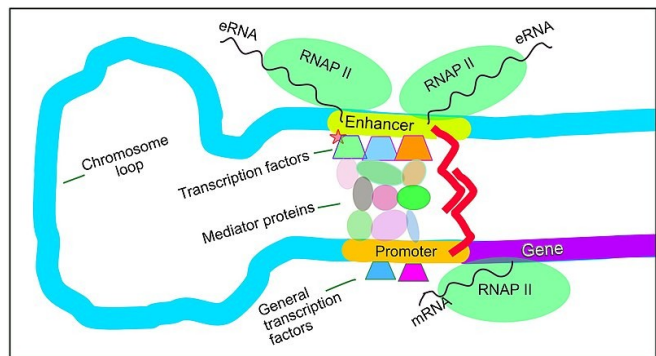
Nucleotide



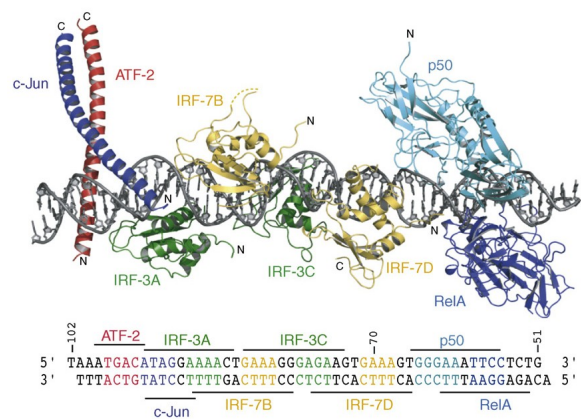
Histone Tail Acetylation



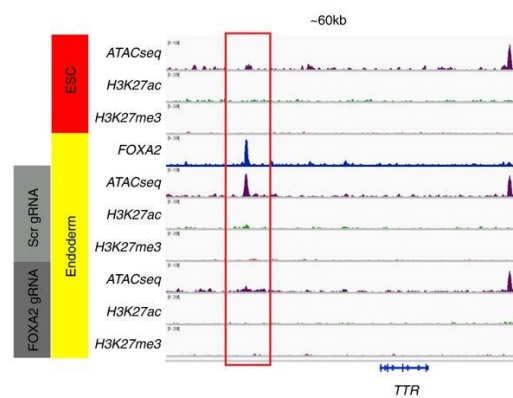
Enhancer



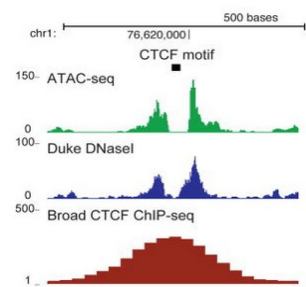
Enhancer



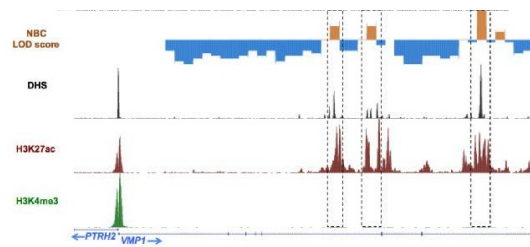
Enhancer



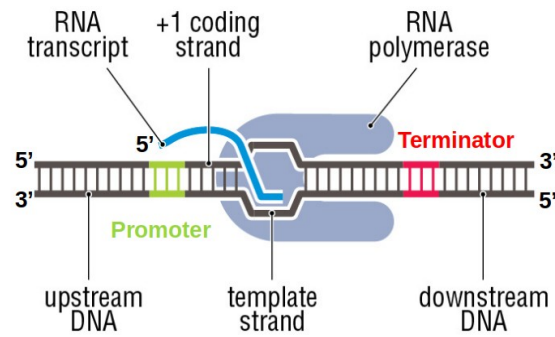
Enhancer



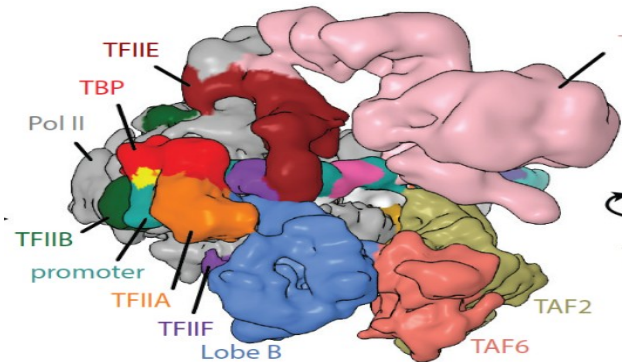
Enhancer



Transcription



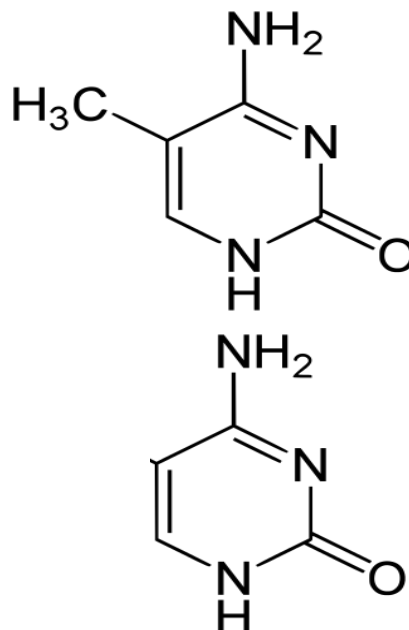
RNA polymerase



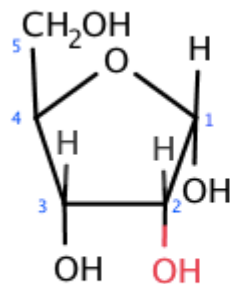
Histone Tail Methylation

5-methyl cytosine

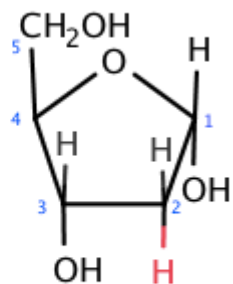
cytosine



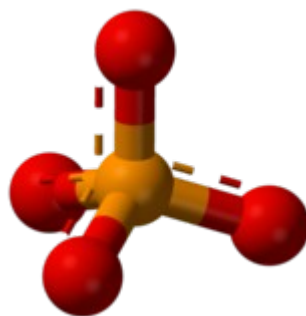
ribose



deoxyribose



phosphate

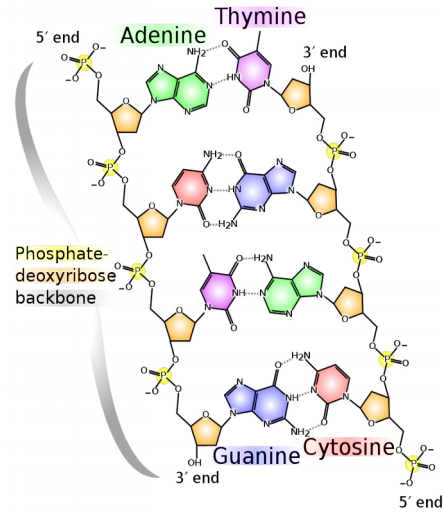


Amino acid

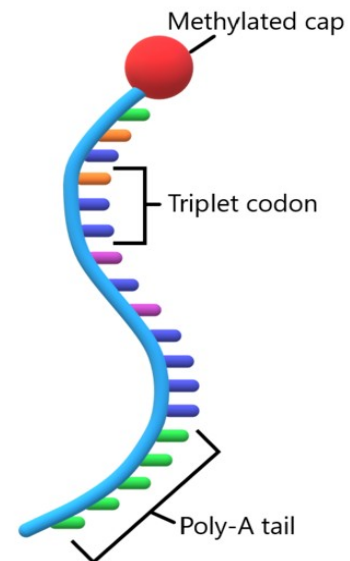
Carbon
Nitrogen
Oxygen

Group	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Period	↓																	
1	1 H																	2 He
2	3 Li	4 Be											5 B				9 F	10 Ne
3	11 Na	12 Mg											13 Al	14 Si	15 P	16 S	17 Cl	18 Ar
4	19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
5	37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe
6	55 Cs	56 Ba	* 71 Lu	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
7	87 Fr	88 Ra	* 103 Lr	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Cn	113 Nh	114 Fl	115 Mc	116 Lv	117 Ts	118 Og
			* 57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb		
			* 89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No		

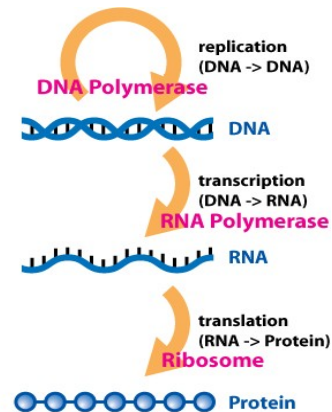
DNA



Messenger RNA



The central dogma



Sources. Please refer to the lecture slides for attribution of images not attributed in this document.

Periodic table is from Offnfopt, Public domain, via Wikimedia Commons.

https://commons.wikimedia.org/wiki/File:Simple_Periodic_Table_Chart-en.svg

mRNA is from Christinelmiller, CC BY-SA 4.0

<<https://creativecommons.org/licenses/by-sa/4.0/>>, via Wikimedia Commons.

https://upload.wikimedia.org/wikipedia/commons/b/b7/Messenger_RNA_-_Simple.png

DNA is by Madeleine Price Ball, licensed under CC0.

Ribose & deoxyribose are by Miranda19983\$, CC BY-SA 4.0

<<https://creativecommons.org/licenses/by-sa/4.0/>>, via Wikimedia Commons

https://en.wikipedia.org/wiki/Ribose#/media/File:The_difference_between_ribose_and_deoxyribose.png.

Phosphate is by Benjah-bmm27, Public domain, via Wikimedia Commons,

<https://commons.wikimedia.org/wiki/File:Phosphate-3D-balls.png>.

Enhancer IGV track is from Genga et al. 2019 doi: 10.1016/j.celrep.2019.03.076.

Looped enhancer is by Bernstein0275 from wikimedia commons,

<https://tinyurl.com/dh23twss>.

Histone tail acetylation is by Annabelle L. Rodd, Katherine Ververis, and Tom C. Karagiannis.

<http://www.hindawi.com/journals/lymph/2012/290685/>