

What is indicated by 'a' in the figure?

- (a) 5' phosphate (b) 3' phosphate
 (c) Ribose sugar (d) Nitrogen base

PO₄³⁻

5' ————— 3'

5- end of ribose sugar bears

(a) N-base

(b) Deoxyribose

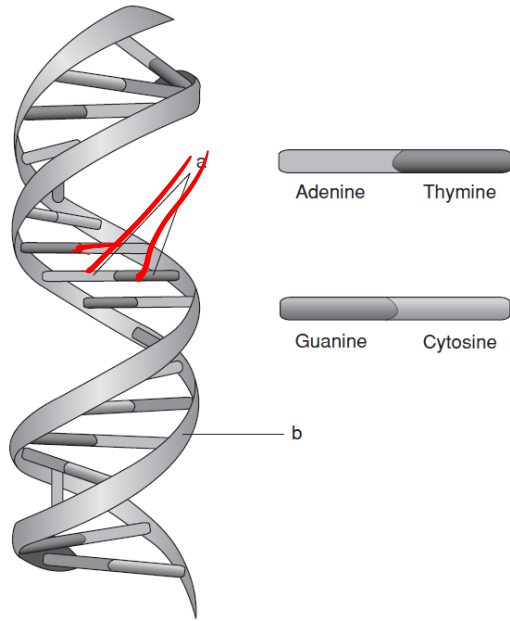
(c) Phosphate group

(d) Hydroxyl group

OH

↳ 5' end

Deoxyribose
DNA



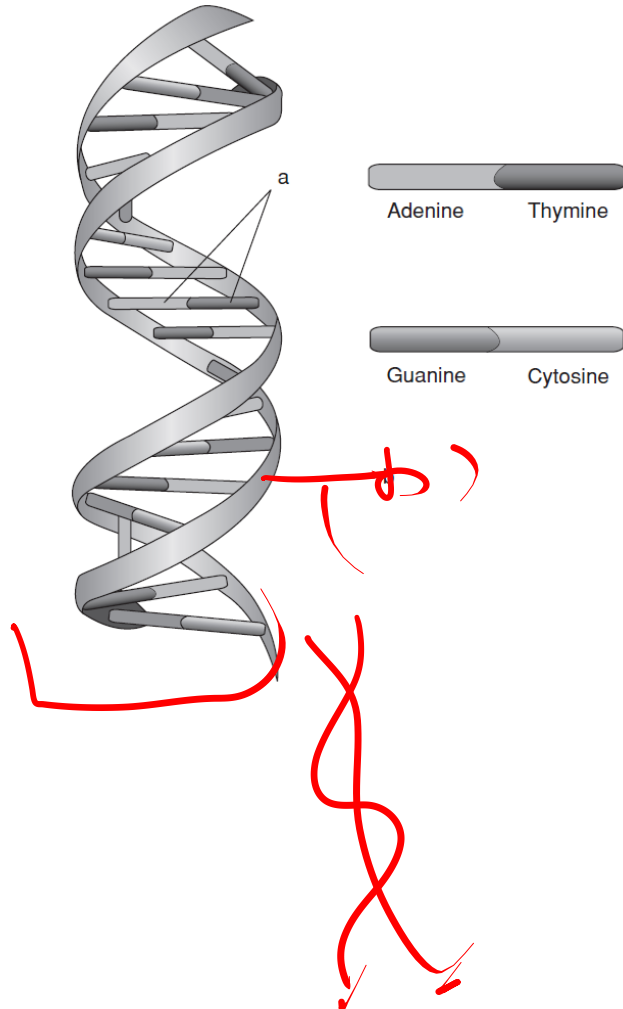
What is indicated by 'a' in the figure?

(a) ~~Sugar~~

(b) ~~Phosphate~~

(c) Base pairs

(d) ~~Singular bases~~



*dl ds circular DNA
ss circular DNA*

What is indicated by 'b' in the figure?

- (a) Base pair end ✓
- (b) Only sugar backbone ✓
- (c) Only phosphate backbone ✓
- ✓ (d) Both (b) and (c) ✓

How many types of nucleic acids are found in living systems?

(a) 3

(b) 1

~~(c) 2~~

(d) 4



Which nucleic acid in some viruses can also act as genetic material?

(a) DNA

(b) RNA

(c) mRNA

(d) tRNA

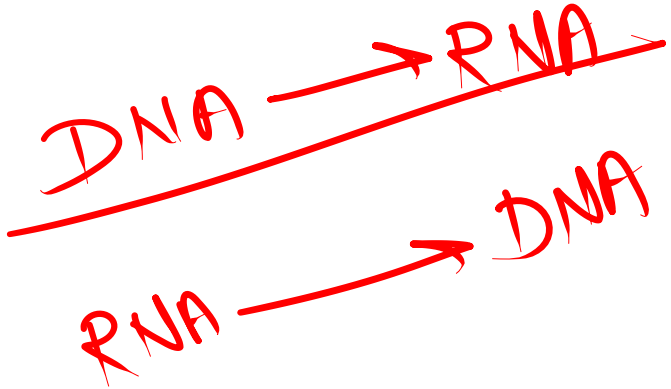
Covid 19 → 1000+ viruses
~~SRNA~~

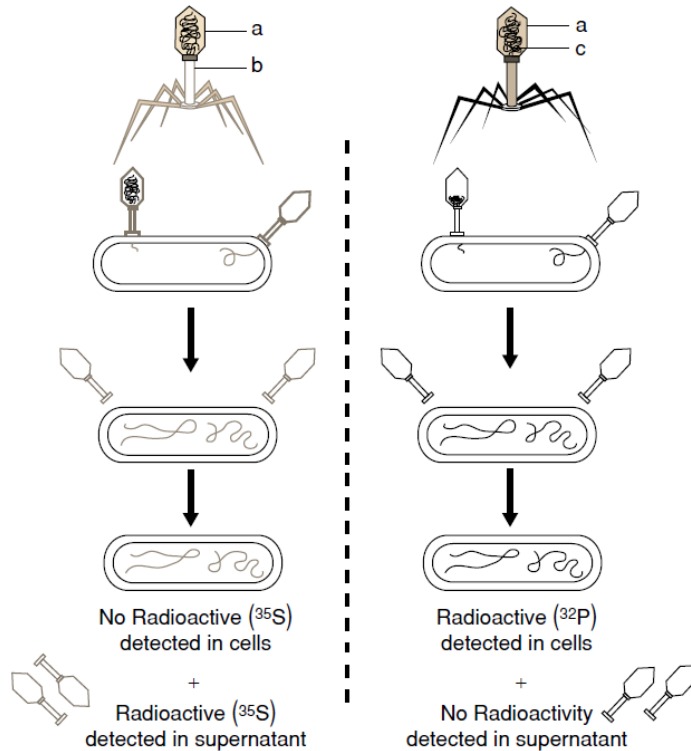
~~RNA~~

* The process of making RNA from DNA is termed as

(a) Transaction (b) Transformation

~~(c) Transcription~~ (d) Transduction



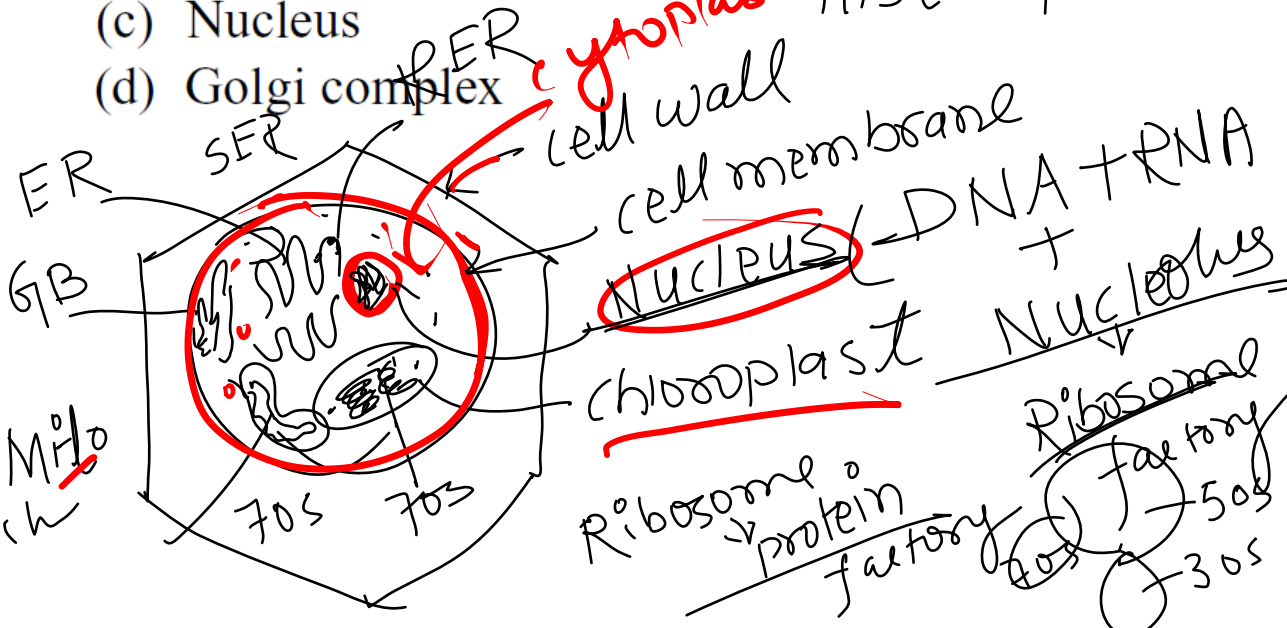
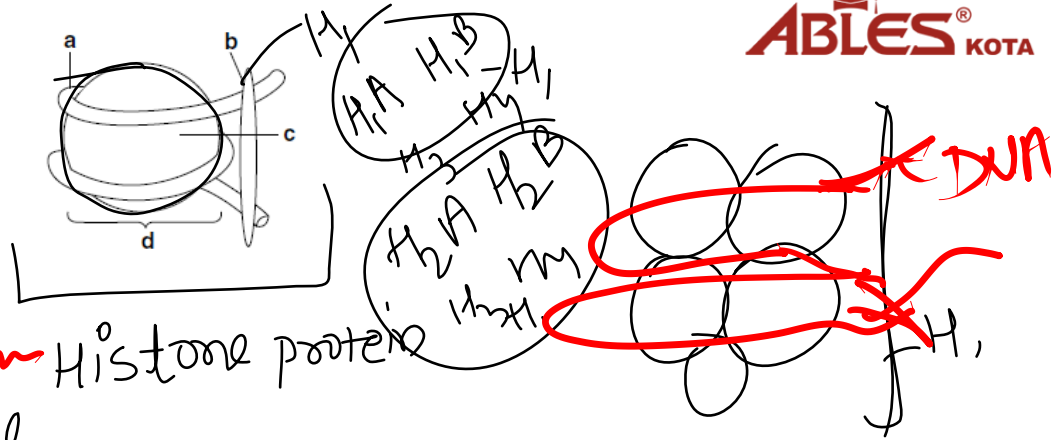


Which experiment is shown in the figure?

- (a) Griffith's experiment
- (b) Avery, MacLeod and McCarty
- (c) Hershey-Chase experiment
- (d) Meselson and Stahl experiment

The figure shows an essential biomolecule associated with which cell organelle?

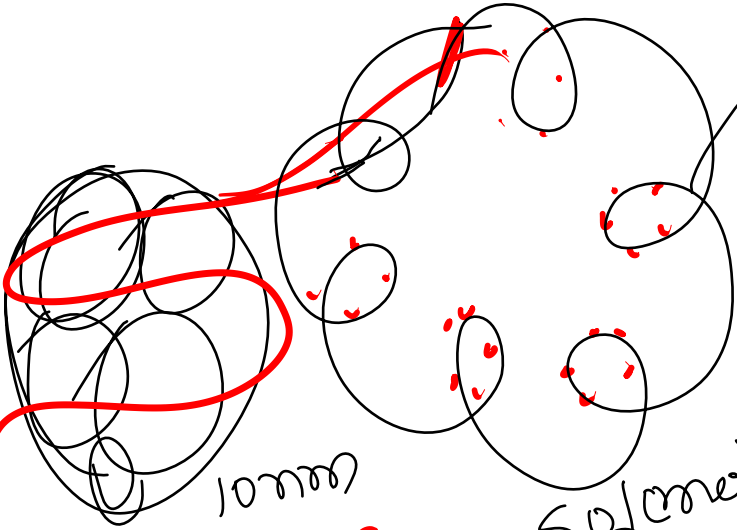
- (a) Endoplasmic reticulum
- (b) Ribosome
- (c) Nucleus
- (d) Golgi complex



2nm DNA



H1



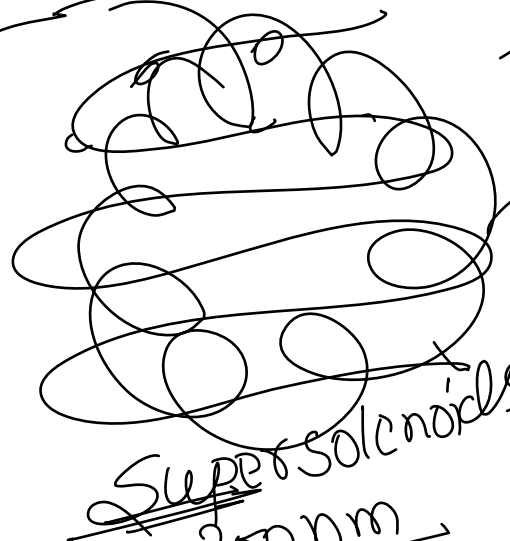
10nm

Nucleosome
H₁ + histone

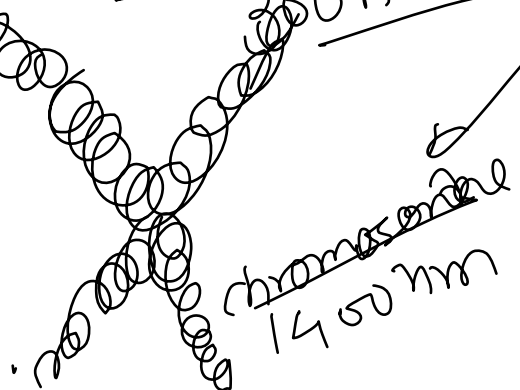
(H₁A, H₁B, H₃, H₄)
H₂A, H₂B, H₃, H₄
H₁

6 solenoids

Solenoids
30nm



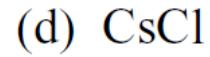
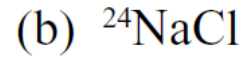
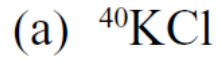
Super solenoids
300nm



700nm

chromosome
1450nm

In Meselson and Stahl experiment, *E. coli*
was grown in a medium containing



1	2	3	4	5	6	7	8	9	10
A	C	C	D	C	B	C	C	C	C