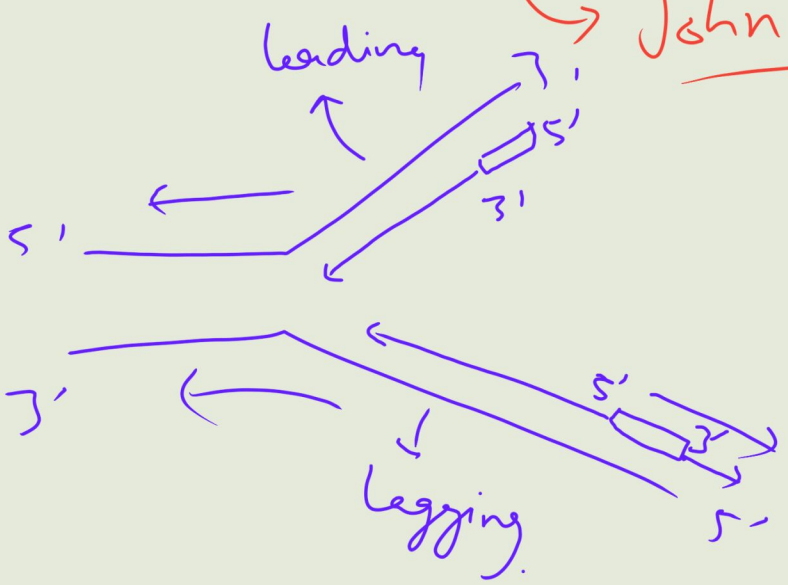
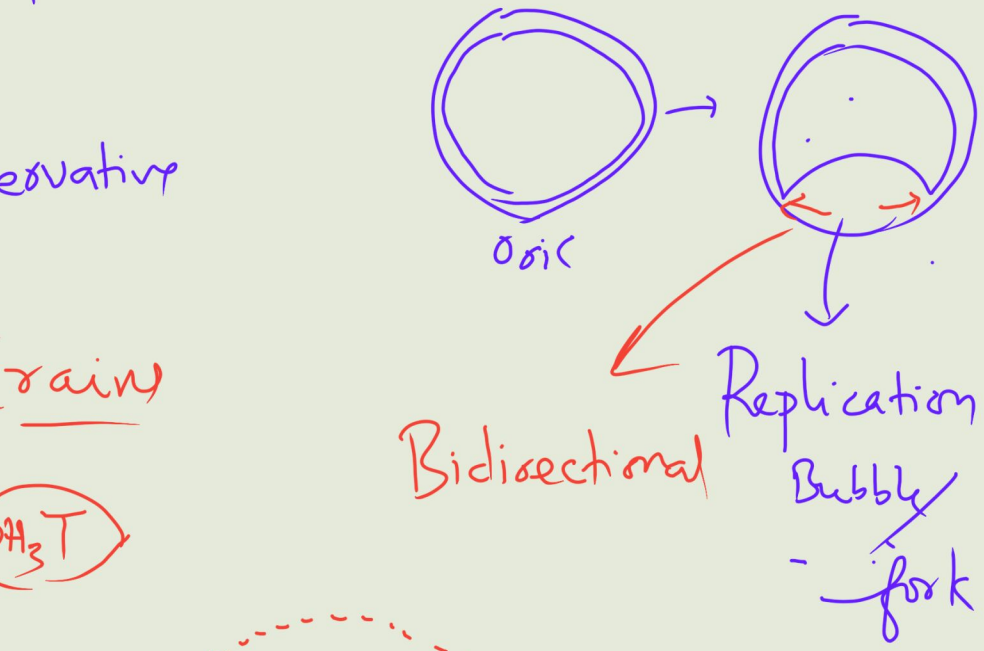
DNA Replication

1) Watson Crick Model

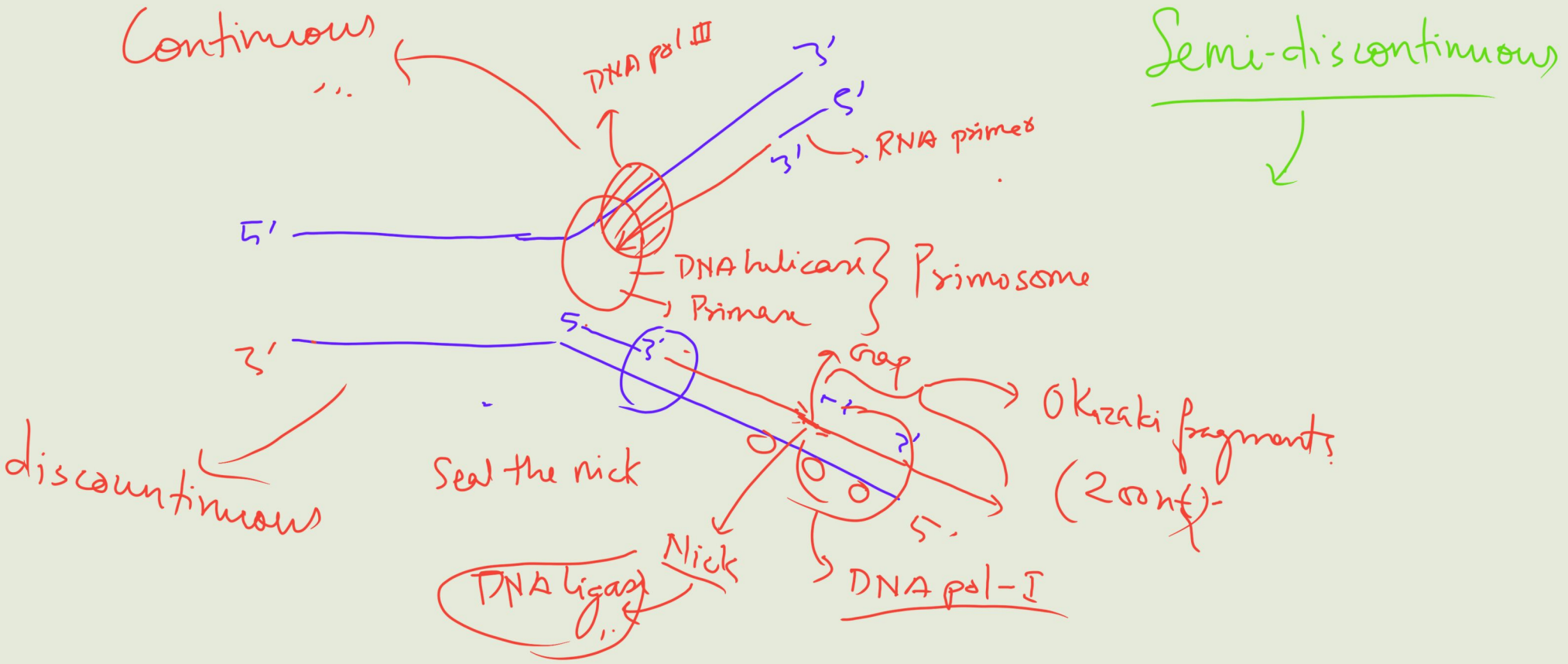
* Replication Semiconservative
* Bi-direction

→ John Crain





Okazaki fragments

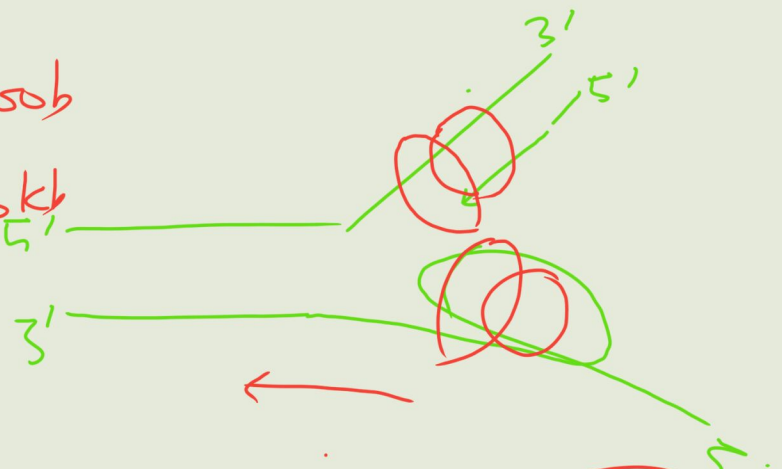


DNA pol-III holoenzyme

b

Kb → 1000b

Mb → 1000kb



Catalytic domain { α, ε, θ

α: 5'→3' Poly

ε: 3'→5' exo

θ: enhance proofreading

τ = dimerization

β = sliding clamp

γ, δ, χ, ψ, δ' → γ complex

Clamp loader

Fedility

10

5×10^6 nt/

$\frac{1000}{5} = 200$