

Sought to - lethals defective in silencing w/ artificial silencer

ORC = origin replication complex } are they same activity  
= required for silencing

↓  
Probably no

- can uncouple replication & silencing activities.

Other genes in which mutations lead to silencing phenotype  
PCNA + RFC

orc5 - mutants

- arrested @ G2

- chromos. appear to be replicated

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## Jasper Rine

Genes } Neighborhood  
Chromosomes }

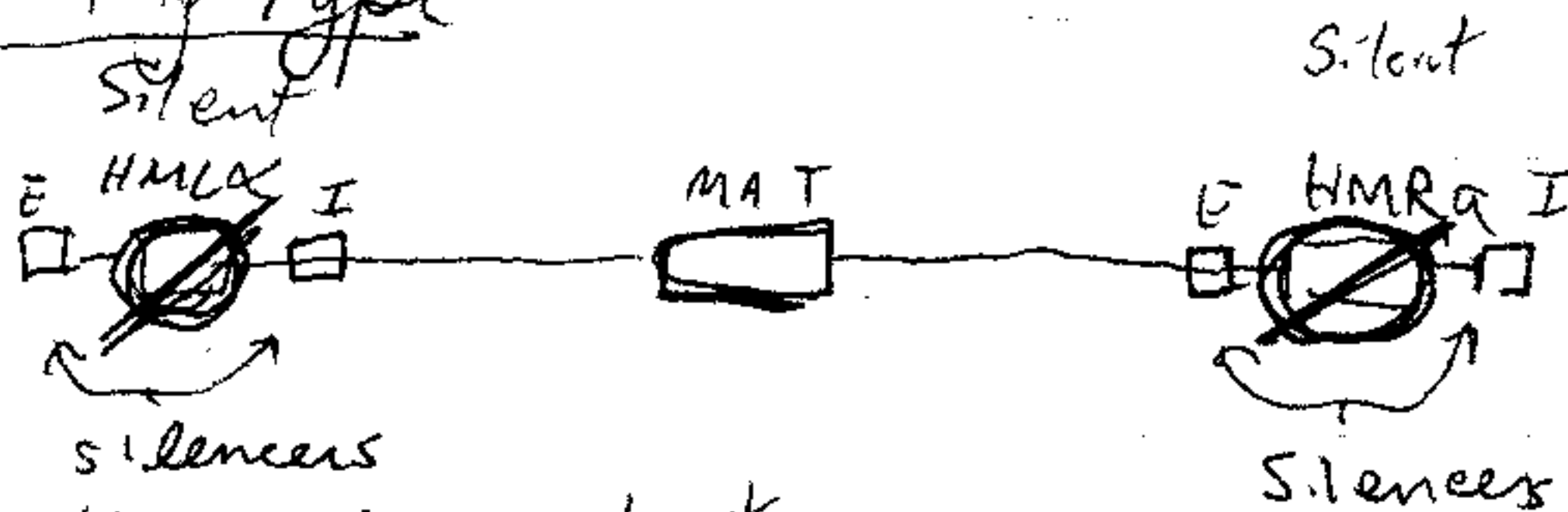
"Judging from reprint requests our work is only known by a few Lithuanians & my mother."

## Position effect

Connection between DNA Replication & transcription

- activation of origins
- specialized origins

## Yeast Mating Type



Why are HMLα & a silent

- Gene Conversion leads to mating type conversion.

- Silencers
- Genes (SIR1-4, ARDL, NAT1, RAP1, HHF1,2)

## Silencing Assay

- HO endonuclease will NOT cleave at silent loci
- (some restriction enzymes also will NOT cleave)
- this shows chromatin is different in silenced regions
- in SIR3 ts mutant - restoration of silencing reqs. S-phase