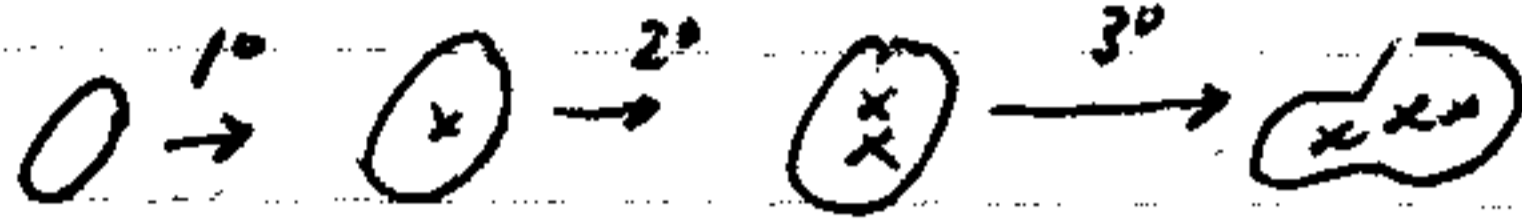


~~Yafei Liu Evolution of B-cell Lymphoma~~
Yafei Liu

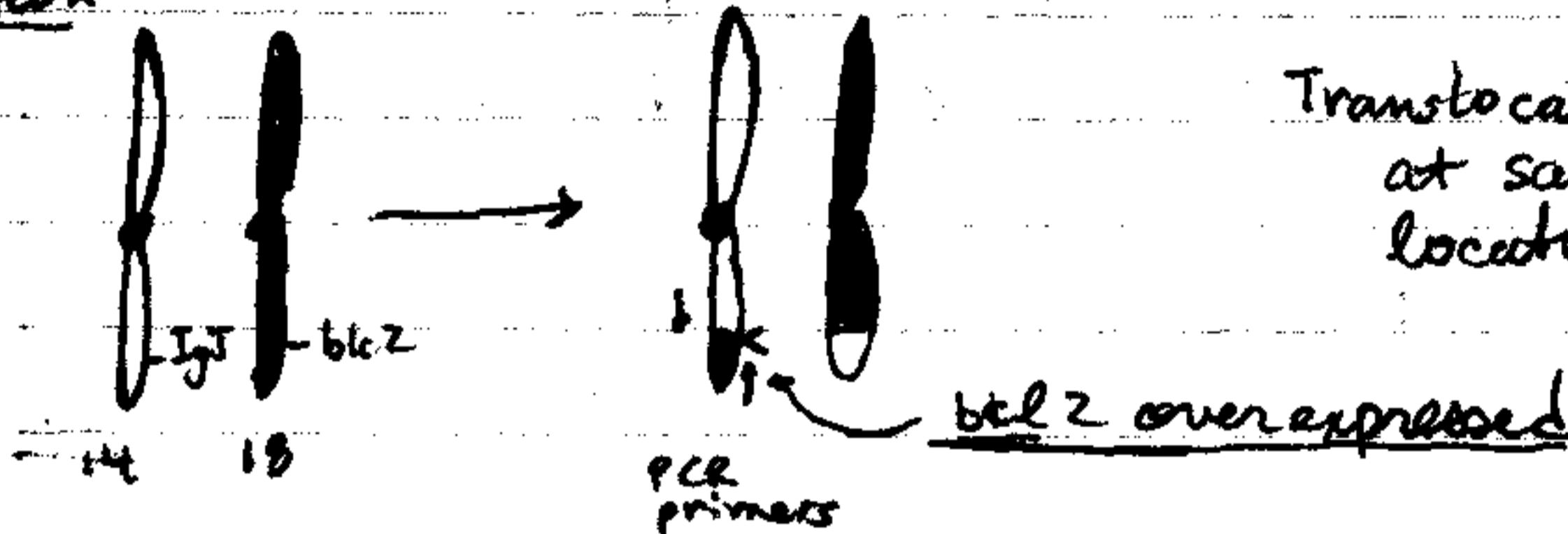
4/14/95

Somatic BCL-2 Translocations in Persons w/o Lymphoma



- multiple mutation model for cancer development
- postulate - the more 1st, 2nd mutations the more likely one is to develop cancer

Translocation



Translocation occurs usually at same ~~places~~ general locations. Due to VDJ recomb.

- this translocation occurs in 50% of non-Hodgkin's lymphomas
- PCR assay to detect this
 - use nested Primers & PCR-Southern
 - do serial dilution -- can detect 10^{-6} / 0.5×10^6 cells
 - some translocation in non-affected individuals
 - occur at diff. regions
 - up to 50% of non-affected individuals have translocation
 - depends on tissue-type
 - most are at very low %/normal cells

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Which cells have these translocation:

- appears to be B cells (purify B cells & then do PCR assay... translocation copurifies)



Do the translocations persist?

- yes many persist longer than normal B-cells survive?
- consistent w/ translocation delaying cell death
- this could allow for ↑ in other mutations

Does translocation frequency correlate w/ non-H lymph. risk factors?

- Age - incr. age correlates w/ incr. NHL lymph
- translocation freq. incr. w/ age

Smoking - incr. smoking → incr. NHL

- translocation also correlated

Mutagen Exposure -

- translocation correlated w/ smoking dose

NEW PROJECT

HL60 cells ... undifferentiated cells

- stimulate w/ TPA or OMSO → differentiation
- this also leads to Jκ block betw. exon 2 + exon 3

- repair in EXON 3 - still see TCR in EXON 3 but not big diff. w/ NTS

- so... why?

- some tx leakage

