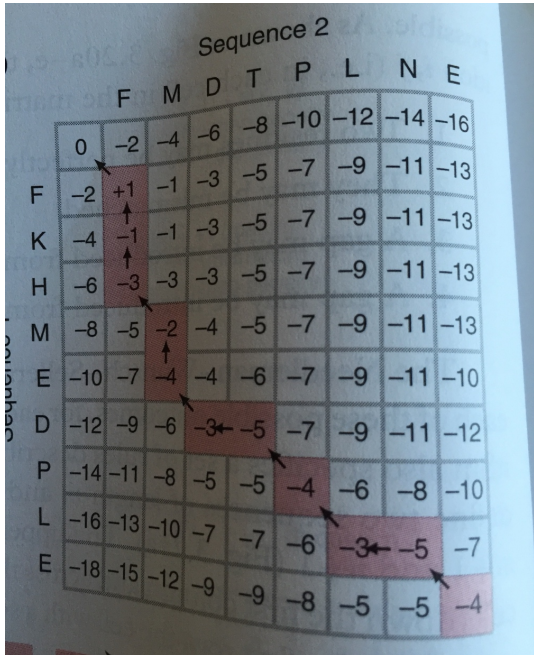


FASTQ AND ILLUMINA

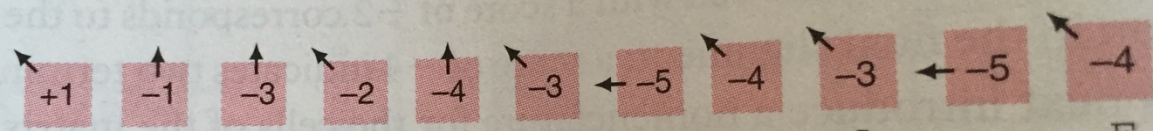
23 SEPT 15

ANNOUNCEMENTS

ALIGNMENT FLASHBACK



(c)



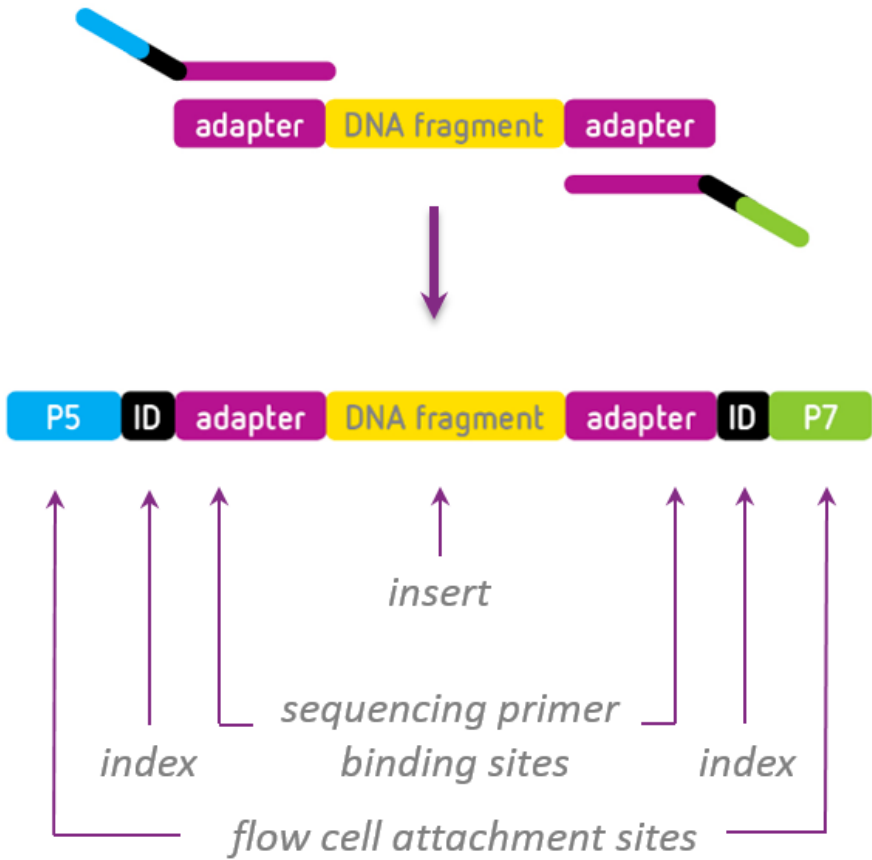
Sequence 1
Sequence 2

F K H M E D - P L - E
F - - M - D T P L N E

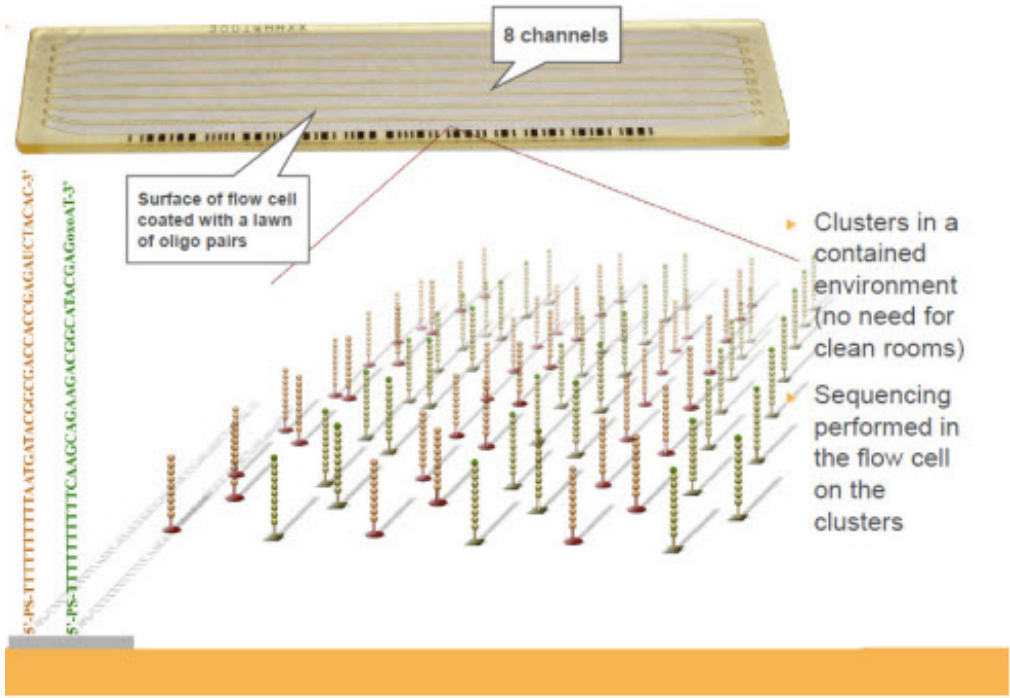
fastQ -> Illumina Seq

<https://youtu.be/womKfikWlxM>

Illumina Seq



Illumina Seq



Illumina Seq

@HSQ-7001360:67:H88RHADXX:1:1101:1448:2158 1:N:0:CAGATC

- 1101=tile number
- 1448= x coordinate
- 2158= y coordinate

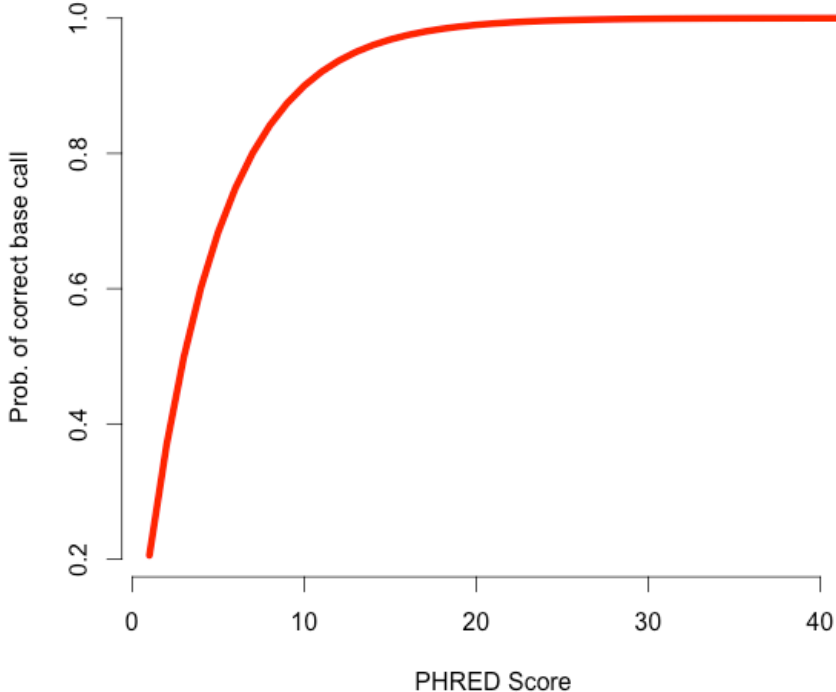
fastq Quality Scores

```
@HSQ-7001360:67:H88RHADXX:1:1101:1448:2158 1:N:0:CAGATC  
ATCTATCTGAGACTGATACGCCTTCGGCTTAATTTATAACAAG  
+  
BBBFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
```


Quality Scores

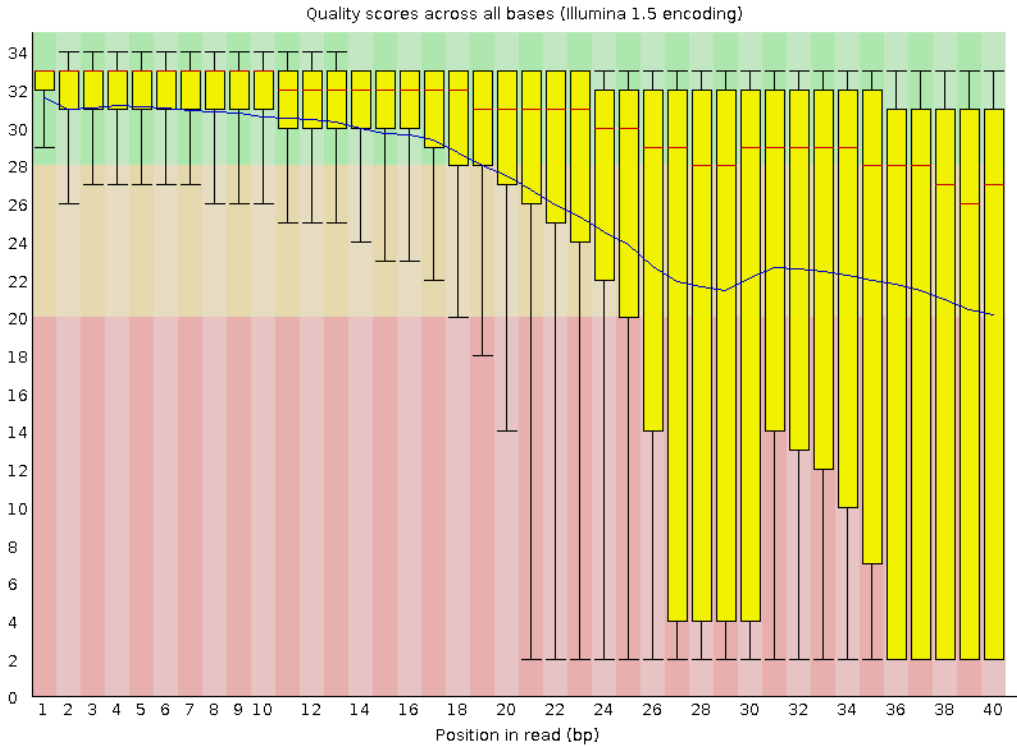
$$p_{correct} = 1 - [10^{-\left(\frac{Q}{10}\right)}]$$

Q=Phred score

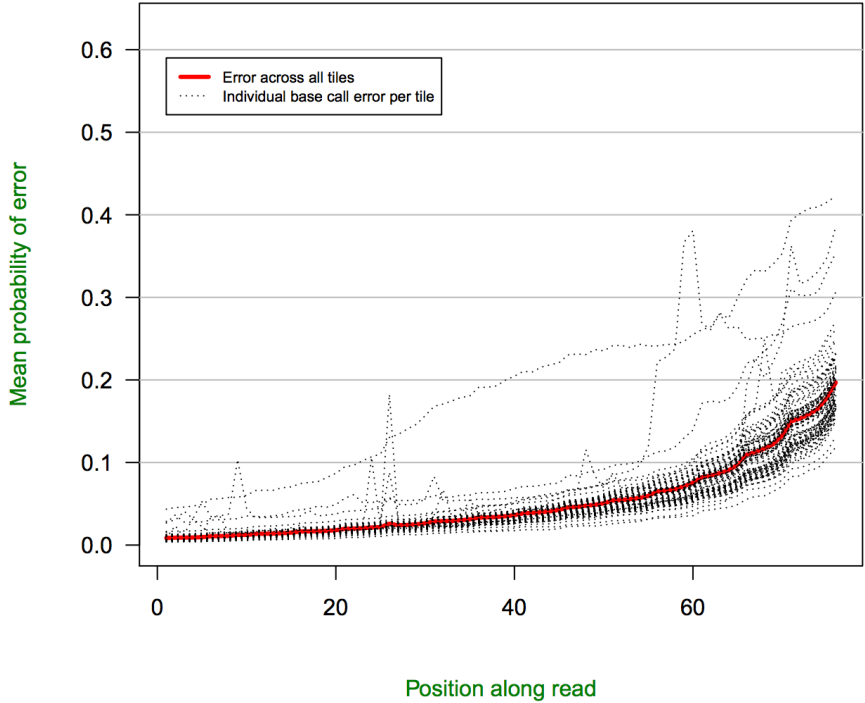


Quality Scores

BBBFF

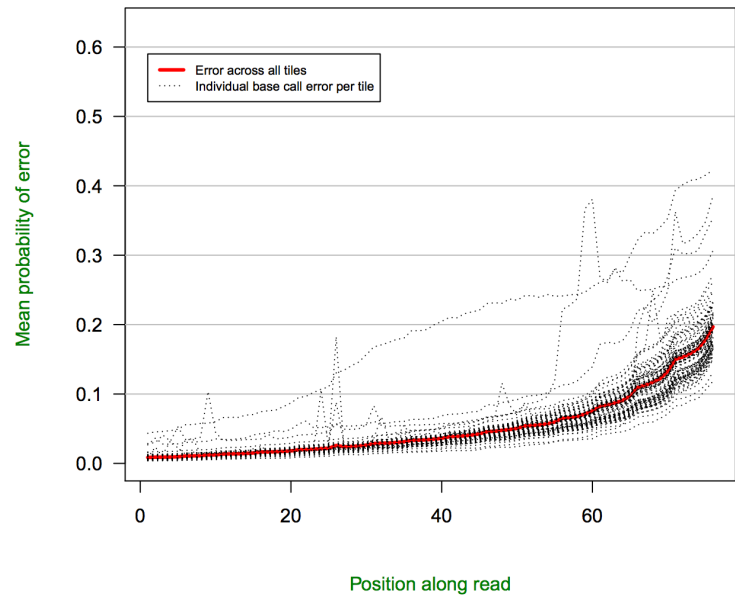


Quality Scores

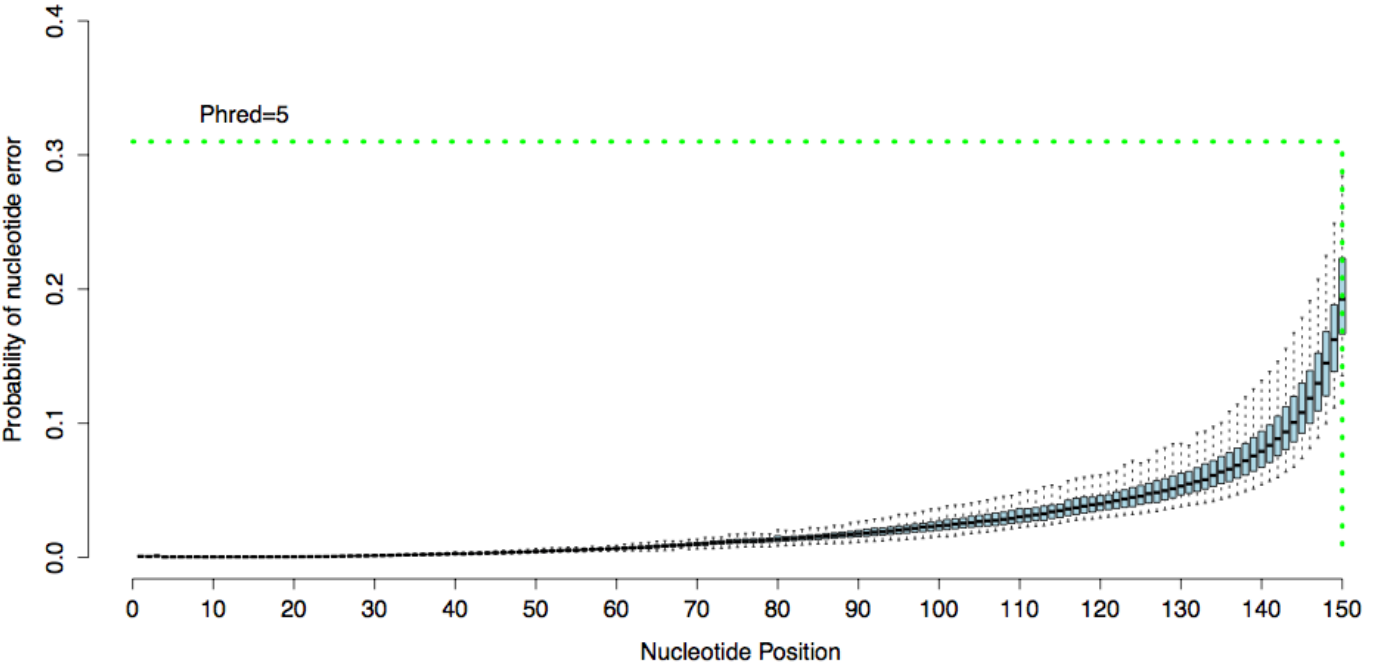


Quality Scores

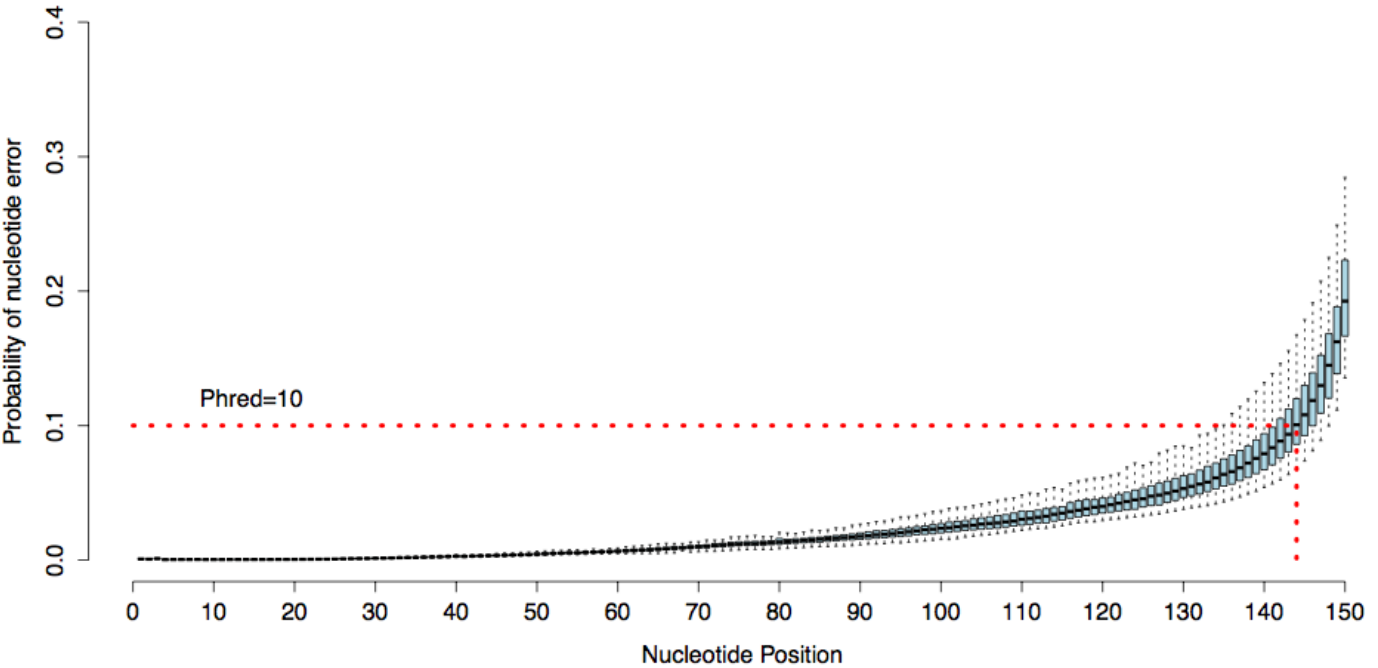
What should we do about this?



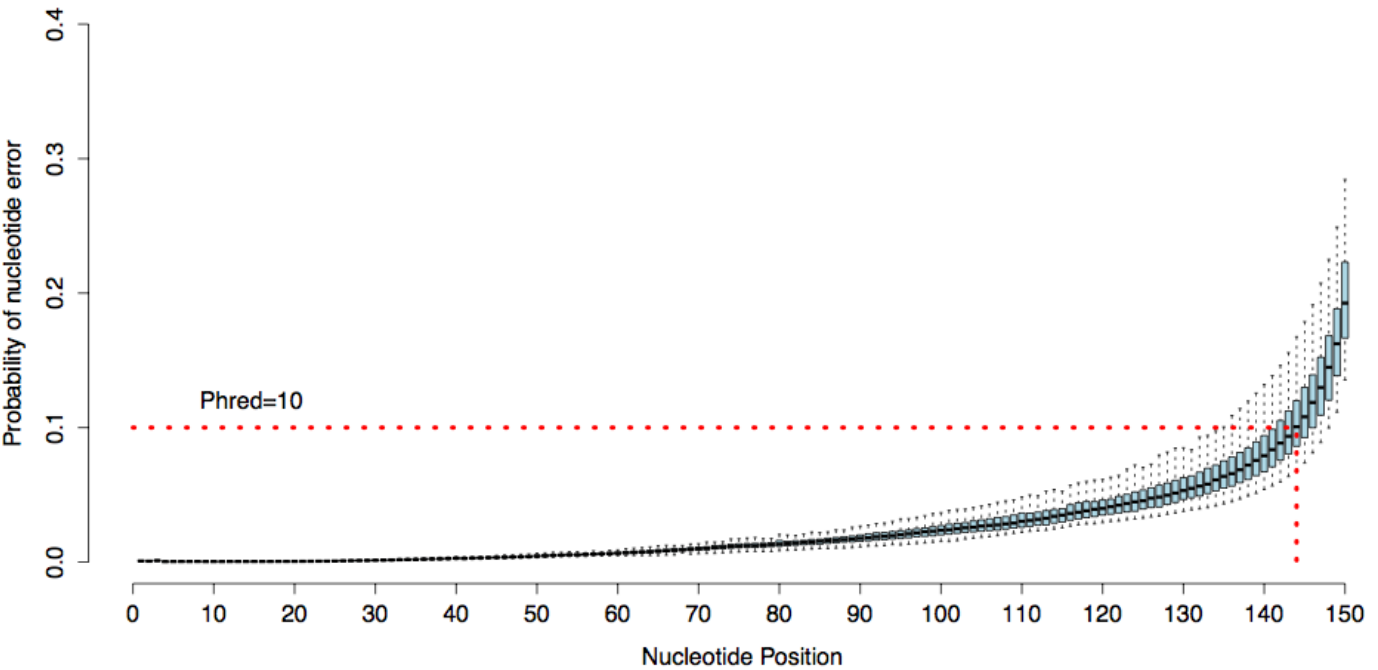
What to do? Trimming?



What to do? Trimming?



What to do? Trimming?



What to do? Trimming?

