Upon analyzing the sequences of both cycles of the first biochemistry, we see error rates of 3.9% and 6.5% making the average error rate for biochem1= 5.2 %.

The second biochemistry has a misconfigured dye to base pairing and after taking account the misconfiguration, we find that dyes matched to A, C, G and T originally should in actuality map to C, G, T and A respectively. Upon this reconfiguration, we get error rates of 5.5% and 4.9% for the cycles making the average error rate for biochem2= 5.2%

We see that both the biochemistries yield the same average error rates making them equally accurate sequencing methods. Hence, the biochemistry team can proceed to use either sequencing methods depending on other factors such as sequencing time.