**Possible Questions for Meeting**

1. **The yeast extract is the building material for the bug. Why do we vary the quantities during the experiment, and how does this affect the rates?**

The rate, or mu is only affected if the yeast extract supply runs out. In batch 1 fermentation, the rate was not affected

1. **How is the rate of CO2 production related to biomass production?**

The biomass production is related to CO2 production by a ration of \alpha + 1. This is how we can indirectly measure the rate of growth.

1. **Does the bug grow only under anaerobic conditions? What happens when oxygen is introduced?**

No, the bug can still grow but at a much lower rate. The maximum rate of growth with zero oxygen present is 0.78gX/gGluc. With oxygen present, the growth is lower as oxidative phosphorylation pathways are preferred.

1. **Do inhibition factors play a role with substrates, products or both?**

No, non were observed to make any difference on mu. Literature sources do not mention any substrate inhibition but they do mention Ethanol product inhibition at high Cet. Since all our CO2 measurements kept increasing during our respective experiments, and the Cet was relatively low, our theory is that that the experiment did not go on for long enough to produce a significant amount of ethanol which would trigger product inhibition.

1. **What are the potential causes of outliers?**

* The batches may not have been sealed properly, therefore any oxygen present would have slowed growth down significantly
* Forgetting to switch off probe when taking samples, cause heat spikes which may kill some of the bug
* Not feeding enough yeast extract