

Date of entry:	22-10-22
What have you done on your project this week?	<p>AIM – to compare the OxyR regulons across different bacterial species</p> <p>Searched PubMed for papers on OxyR: Search term “OxyR” returned 839 hits (22-10-22), while searching for “OxyR Escherichia coli” returned 412 results</p> <p>Read and critically analysed 10 of the most relevant papers looking at OxyR-regulated genes in <i>E. coli</i> (references saved in Endnote)</p> <p>→Reading these papers has helped me understand which genes are regulated by OxyR in <i>E. coli</i> (and how this was demonstrated experimentally)</p>
What have you found difficult? (How do you intend to ameliorate this? How can you grow? Can you create a bullet point for your CV from this?)	<p>Didn’t understand the ChIP-exo technique used in Seo <i>et al</i> 2015 initially when I read the paper</p> <p>Read more about this and found a diagram illustrating the steps in ChIP-exo</p> <p>CV bullet point – able to understand complex molecular biology protocols (such as ChIP-exo) and interpret the results</p>
What has been a success?	<p>Found a database of microarray experiments from <i>E. coli</i> - GenExpDB: https://genexpdb.okstate.edu/. Looking through these data should help me understand the expression of OxyR-regulated genes in <i>E. coli</i> under different conditions.</p>
What files/data have you produced? (are they stored securely and labelled clearly?)	<p>Edited thesis intro: saved file with edits as a document named “thesis-intro-draft-01_Oct22_MF”– in “Documents/Project-Files/Drafts”</p> <p>Endnote library file updated with new papers read</p> <p>started to make figure 1 – model of OxyR regulon (draft) – saved as “Figure1-DRAFT1” in “Documents/Project-Files/Figures”</p>
What is the objective for next week?	<p>Analyse OxyR regulon in <i>E. coli</i> using the database – and by looking for other databases (next-gen sequencing data, maybe?)</p> <p>Start looking for databases from other species (probably start with NCBI databases)</p>

	Continue reading published papers looking at the OxyR regulons in different bacteria and analysing their data
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