Understand how mis-folded proteins associated with Parkinson's disease are sequestered by the cell and how this process affects toxicity of the mis-folded proteins.

**Project’s Goal**

Parkinson's disease is one of the most common neurodegenerative diseases. This disease is caused by the sequestration of accumulated mis-folded proteins in the brain. Alpha-synuclein toxicity results in the impairment of a cell’s organelles further leading to cell death.

**Background**

Parkinson’s disease is one of the most common neurodegenerative diseases. This disease is caused by the sequestration of accumulated mis-folded proteins in the brain. Alpha-synuclein toxicity results in the impairment of a cell’s organelles further leading to cell death.

**Procedure**

Made mini preps of the two plasmids of alpha-synuclein, one wild type and one with the A53T mutation. Then, transformed the yeast so the alpha-synuclein is present.

Sent alpha-synuclein plasmids for sequencing since there was no present growth on the LEU plates.

**Results**

**Sequencing Histogram**

**Next Steps**

- Fluorescence Microscope: observe which subcellular component alpha-synuclein is present in
- Western Blots: check expression levels

**References**


https://link.springer.com/article/10.1007%2Fs11064-018-2673-x
https://www.parkinson.org/Understanding-Parkinsons/Statistics

Spatial Sequestration of Alpha-Synuclein
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