**Myc Tag Modification of *Plasmodium Yoelli* Protein PY02678 to Identify its Functions in the Parasite’s Life Cycle**

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**Methods/Results**

1. Amplify Section between Black Dashed Lines w/ Stop Codon

   ![Diagram of ORF and UTRs](image1)

2. Run PCR Gel. After a couple of fail attempts, we have a successful Overlap/Extension (O/E) PCR.

3. Ligation of the insert into pCR 2.1 TOPO Plasmid

4. EcoRI digestion on pCR 2.1 TOPO

5. Ligation of the insert from pCR 2.1 into pSL 0401

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**Introduction**

- Malaria is a vector transmitted disease
- Malaria is caused by a parasitic protist in the genus *Plasmodium*.
- The parasite *Plasmodium falciparum* is responsible for most of the world’s malaria cases.
- A rodent parasite *Plasmodium yoelii* presents numerous similar characteristics to the human parasite *Plasmodium falciparum* and is extensively used to study the biology of the liver stage.

- We have chosen to target a specific gene called PY02678 gene
- Our modification we have chosen to apply to this insert is the Myc tag.
- The Plasmid vector *(PSL0401)* will be joined with insert.
- The Myc-tag will allow us to track where the protein is localized and we can hopefully assume the function of the protein in the parasite’s cycle.

**Conclusions**

- We were not able to insert the final PCR product into the target plasmid *PSL0401*.
- So we were not able to identify the functions of the protein in the parasite’s life cycle.
- These results are incomplete and are part of an ongoing effort to complete the project.

**References**


