Fig S1

**A**

![Graphs showing luminescence and growth of WT L. m. and Mutant L. m. for different proteins and enzymatic reactions.](#)

**B**

**Cysteine Synthesis Pathway**

\[ \text{Serine} \xrightarrow{\text{cysE}} \text{OAS} \xrightarrow{\text{cysK}} \text{Cysteine} \xrightarrow{\text{gshF}} \text{Glutathione} \]

- **In:** Serine
- **Out:** Cysteine, Cystine
- **Enzymes:**
  - cysK: Cysteine synthase A
  - TcyN: ATP binding protein
  - YtmO: Monooxygenase
  - gshF: FMN reductase

**Fig S1**