

UCL iGEM Organism and Part Check In

1. Information about Organism:

phanerochaete chrysosporium

a) What is the Risk Group of this organism? [Help]

Organism is a fungi so does not have a risk group

2. Information about Part(s):

a) What is the natural function of this part in its parent organism?

Lignin Peroxidase main function in nature is to participate in lignin-degrading processes. The enzyme has also been found to play a role in azo dye degradation and decolourisation, by oxidative processes.

b) Does the part, by itself, present any safety risks? If so, what are the risks? If not, why not?

3. What will you use the part/organism for?

This enzyme, like laccase, would be incorporated in the second step of the reaction to oxidise the products of the azo bond cleavage, in order to achieve greater detoxification. The sequence for the enzyme will be ordered and synthesised, including the BioBrick prefix and suffix. Again, it will function together with a promoter and a RBS.

4. How do you plan to acquire the part/organism?

The plasmid containing the gene of interest were sent to us from Universidade de Lisboa as part of our collaboration.

5. Does this part/organism require any additional safety precautions, beyond the precautions you will take for ordinary lab work? How will you handle the part/organism safely and protect members of your team, other people in your lab, and members of the public?

None

6. Further comments

(If you have already begun using this organism/part, briefly describe what you have done with it.)