

Increased protein production yield by improved bacterial strains selection

KEYWORDS

- Genetic design
- Bacterial chaperones
- Increased yield of protein production

Technology Market:

Protein Production Industry

Until now, no or very little efforts have been made regarding the genotype of the bacterial strain used for recombinant protein production.

One of the reason is that what is working for one recombinant protein may not work for another one. The UCL lab has worked on 2 avenues to counter this paradigm

1. Tailor made strains represent an innovative solution to increase the yield of production for each specific periplasmic recombinant proteins.
2. Lysis is also an issue for massive production yield. The UCL Lab generated "lysable" *e. coli* strain releasing 100% of their content using mild treatments.

Preferred partnership

Fee for service arrangements for projects requiring increased protein yield in *E. coli*.

The UCL collaboration offer

On demand optimization of already established strains (BL21,...):

- Fast and efficient selection of mutagenized strains producing your desired protein at a higher yield.
- Production of proteins or plasmids in "lysable" strains increasing the recovery of your product and reducing the micronization of cell debris.

The Collet Lab Expertise:

- ✓ Physiological comprehension of molecular processes and modifications of the bacterial genetic background
- ✓ Production in the periplasm: Disulfide bridges formation, Glycoproteins, membrane proteins, ...
- ✓ Chaperones and repairs systems

