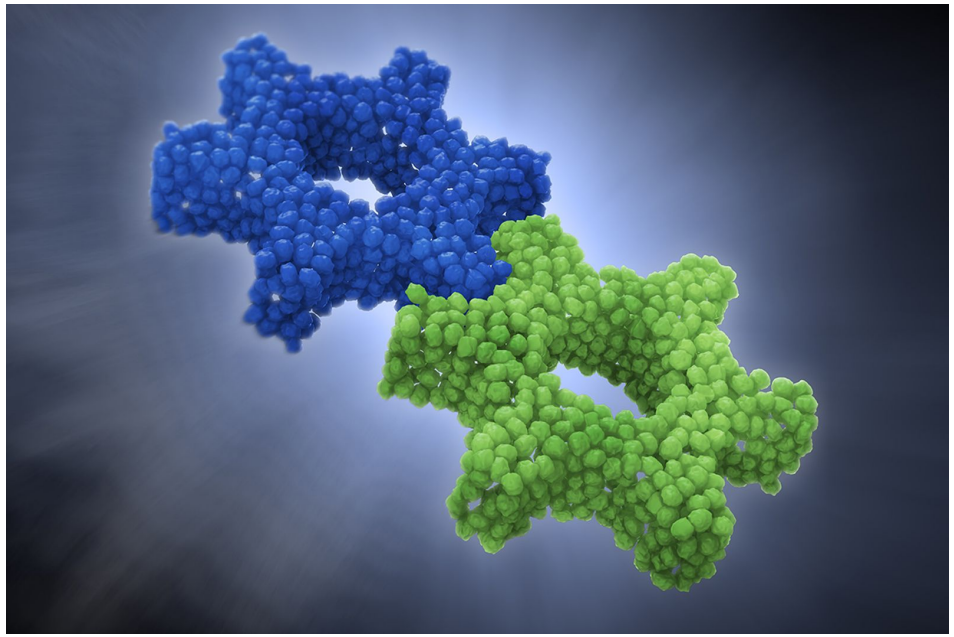
Designing Cheaper Molecular Manufacturing

The Problem:

Many of the newest cancer treatments being developed today use expensive biomolecules such as antibodies to target specific tissues. A bacterial-based manufacturing process would be much cheaper, but some enzymes that are disruptive to antibody production in the extract are necessary for bacterial life.



Our Solution:

I edited the genes that encode these enzymes to have a second part that would get trapped in a specific kind of filter.

The result is a bacteria that when grown in large batches, pulverized, strained, and carefully filtered, is able to manufacture the complex molecules without disruption.