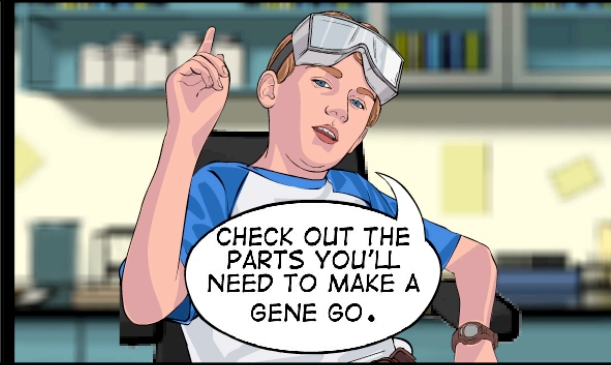


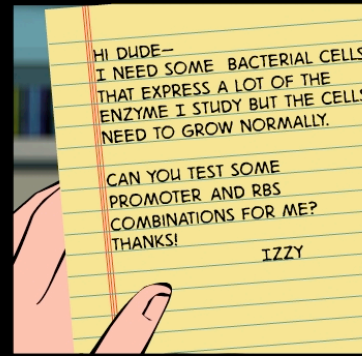
# BIOPRIMER NO.2: EXPRESSING A BACTERIAL GENE



CHECK OUT THE PARTS YOU'LL NEED TO MAKE A GENE GO.

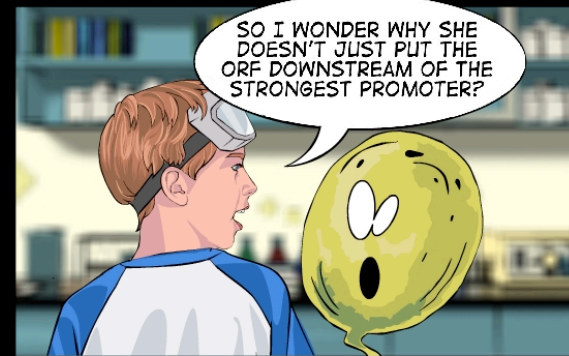


IZ HAS LEFT ME A CHALLENGE THAT I THINK IS PRETTY COOL

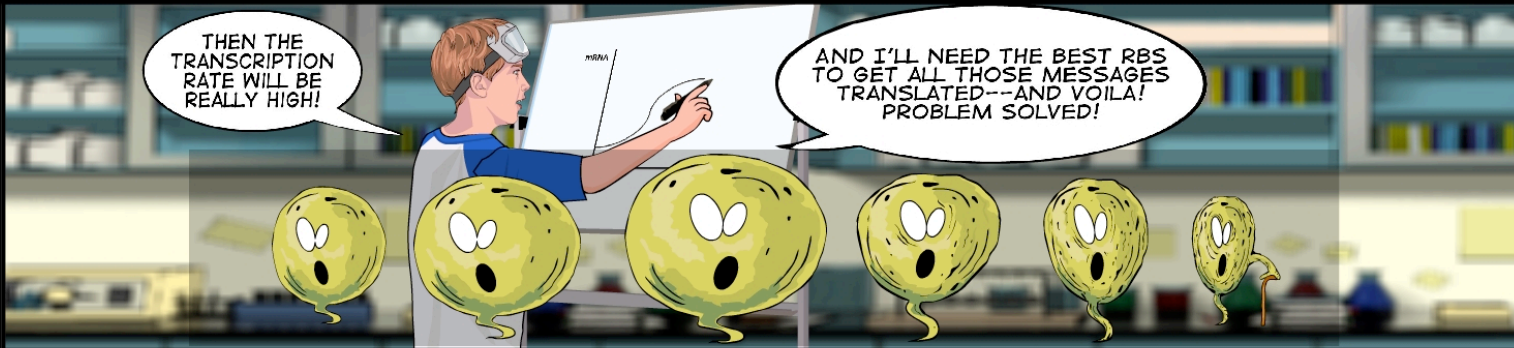


HI DUDE-- I NEED SOME BACTERIAL CELLS THAT EXPRESS A LOT OF THE ENZYME I STUDY BUT THE CELLS NEED TO GROW NORMALLY.

CAN YOU TEST SOME PROMOTER AND RBS COMBINATIONS FOR ME? THANKS! IZZY

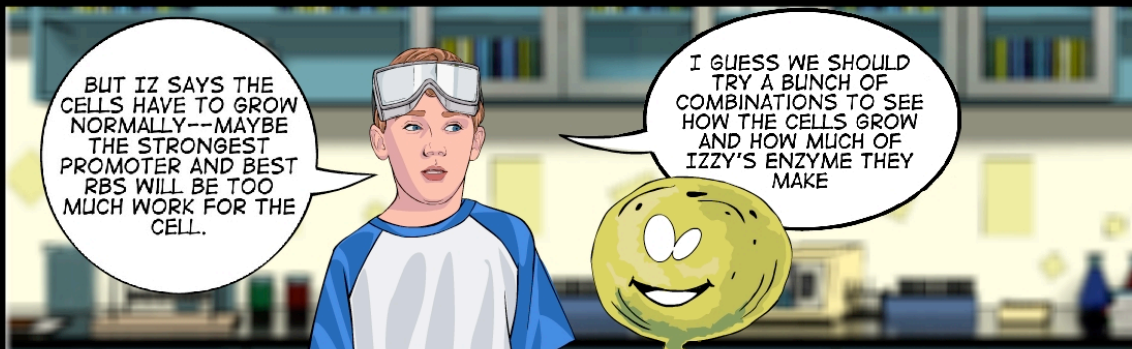


SO I WONDER WHY SHE DOESN'T JUST PUT THE ORF DOWNSTREAM OF THE STRONGEST PROMOTER?



THEN THE TRANSCRIPTION RATE WILL BE REALLY HIGH!

AND I'LL NEED THE BEST RBS TO GET ALL THOSE MESSAGES TRANSLATED--AND VOILA! PROBLEM SOLVED!



BUT IZ SAYS THE CELLS HAVE TO GROW NORMALLY--MAYBE THE STRONGEST PROMOTER AND BEST RBS WILL BE TOO MUCH WORK FOR THE CELL.

I GUESS WE SHOULD TRY A BUNCH OF COMBINATIONS TO SEE HOW THE CELLS GROW AND HOW MUCH OF IZZY'S ENZYME THEY MAKE

Promoter	RBS
Weak	Weak
Medium	Medium
Strong	Strong

YOUR TURN: TRY THIS EXPERIMENT YOURSELF