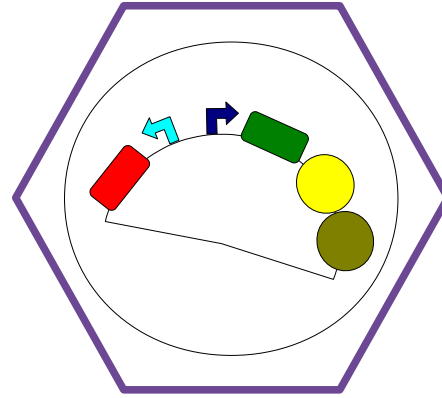
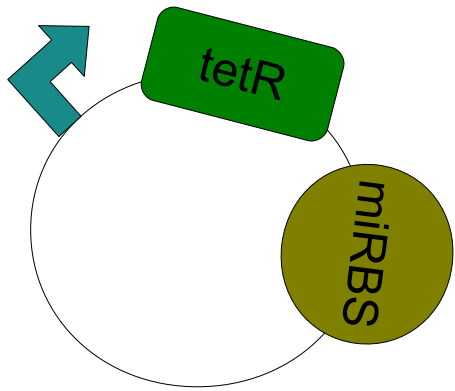
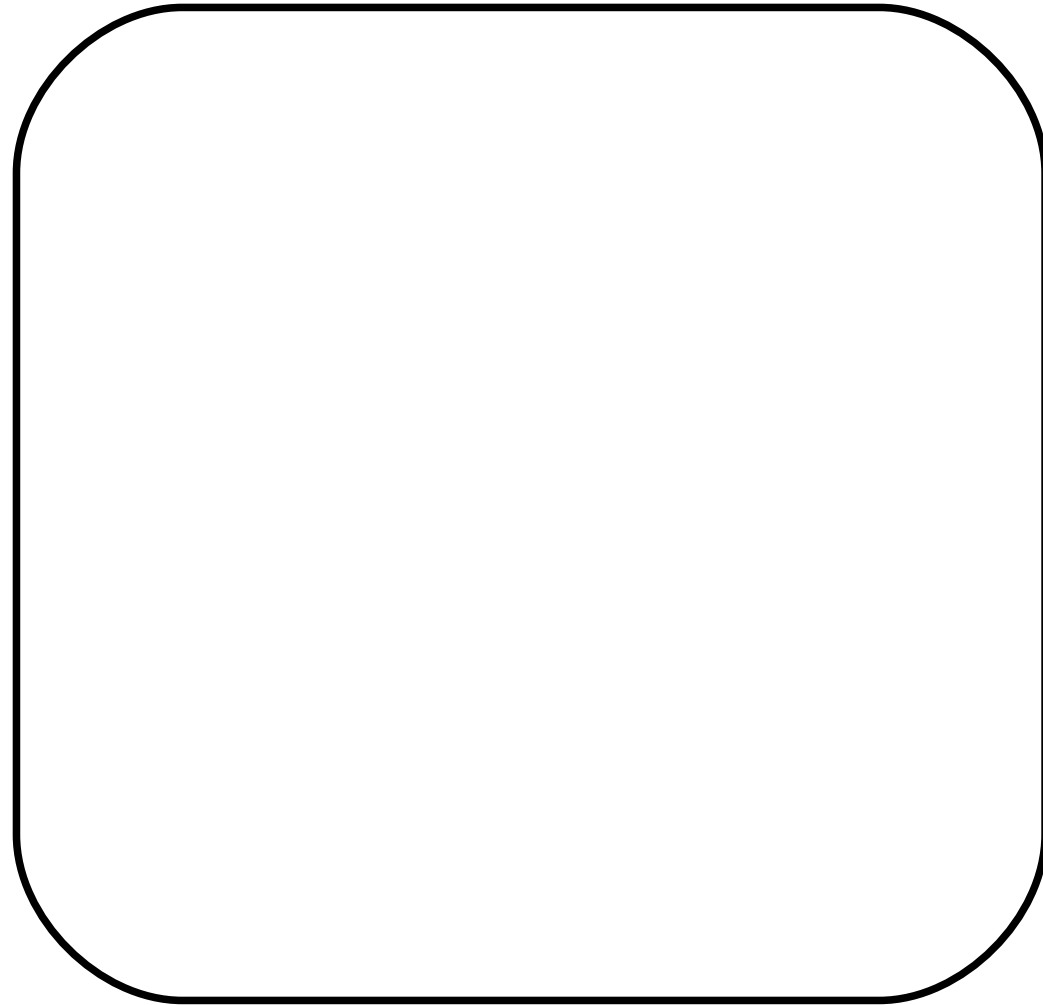
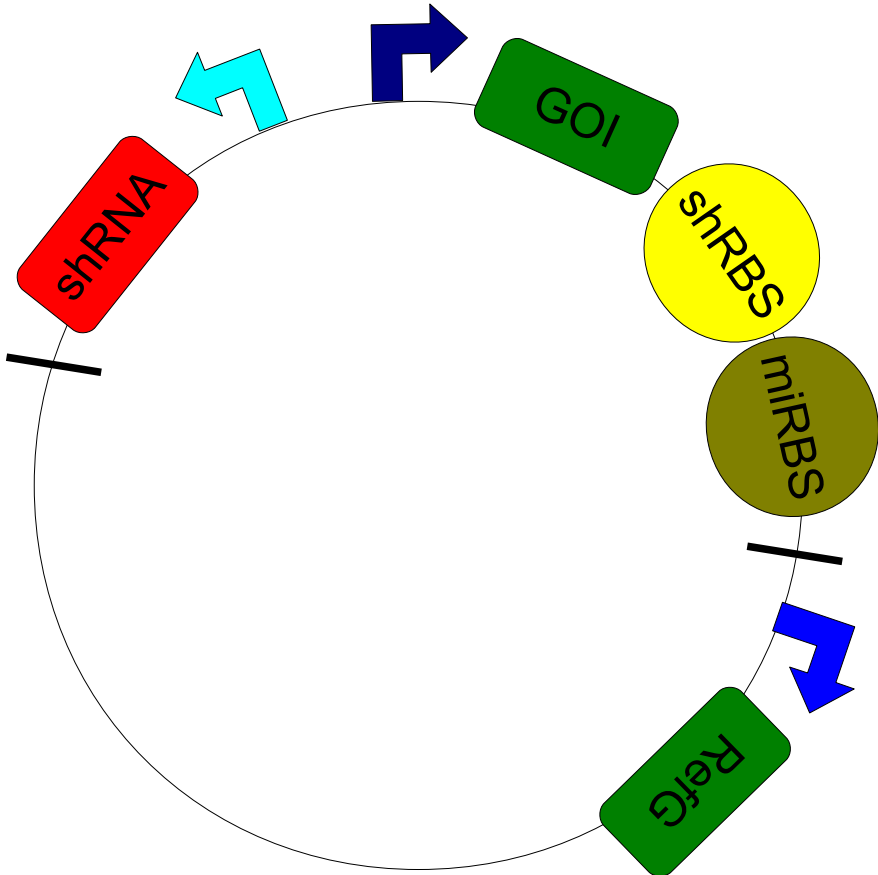
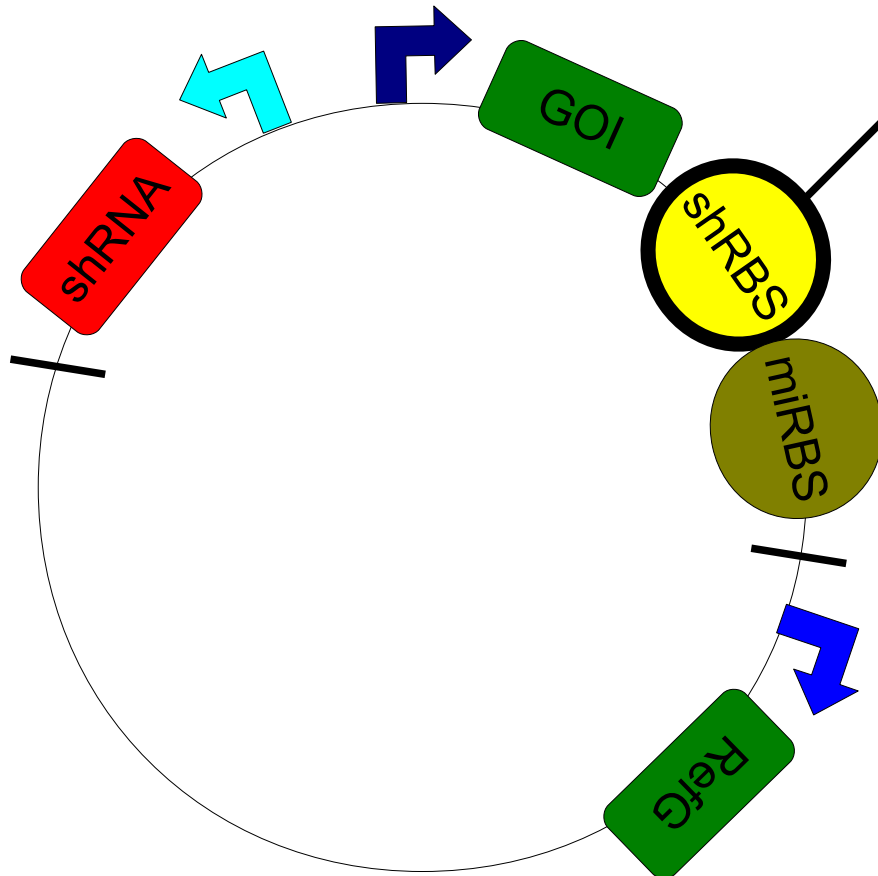
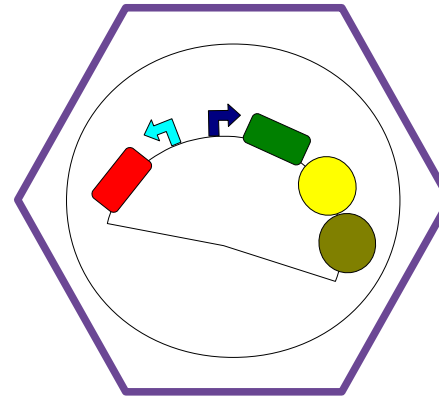
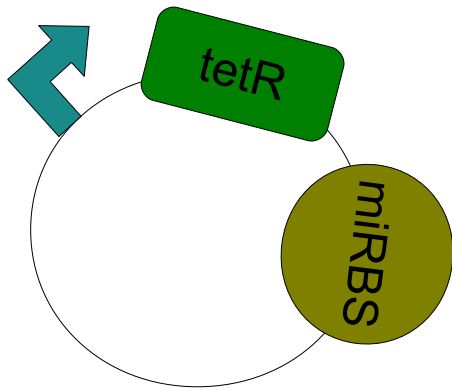


GUI



Cloning Strategy 





Fine tune your expression level:

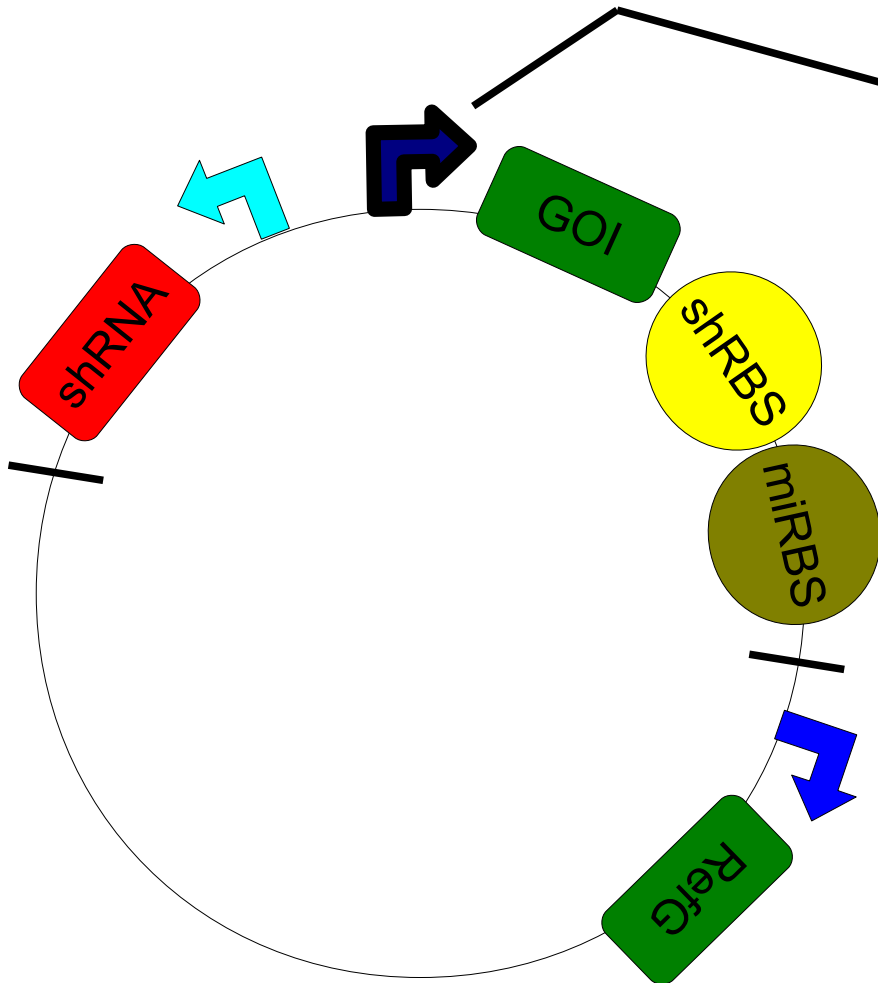
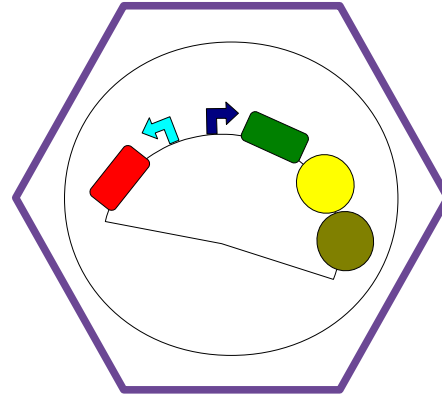
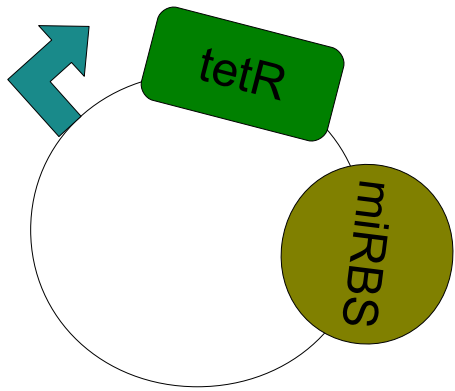
Desired knockdown %:

- Get characterized BS with similar kd%
- Get predicted BS
 - Lookup table parameters
 - Converted by **shRBSdesigner**

Measured knockdown %:

- Adjust lookup table to different conditions
- Give out new BS from modified lookup table

→ **shRBSdesigner**



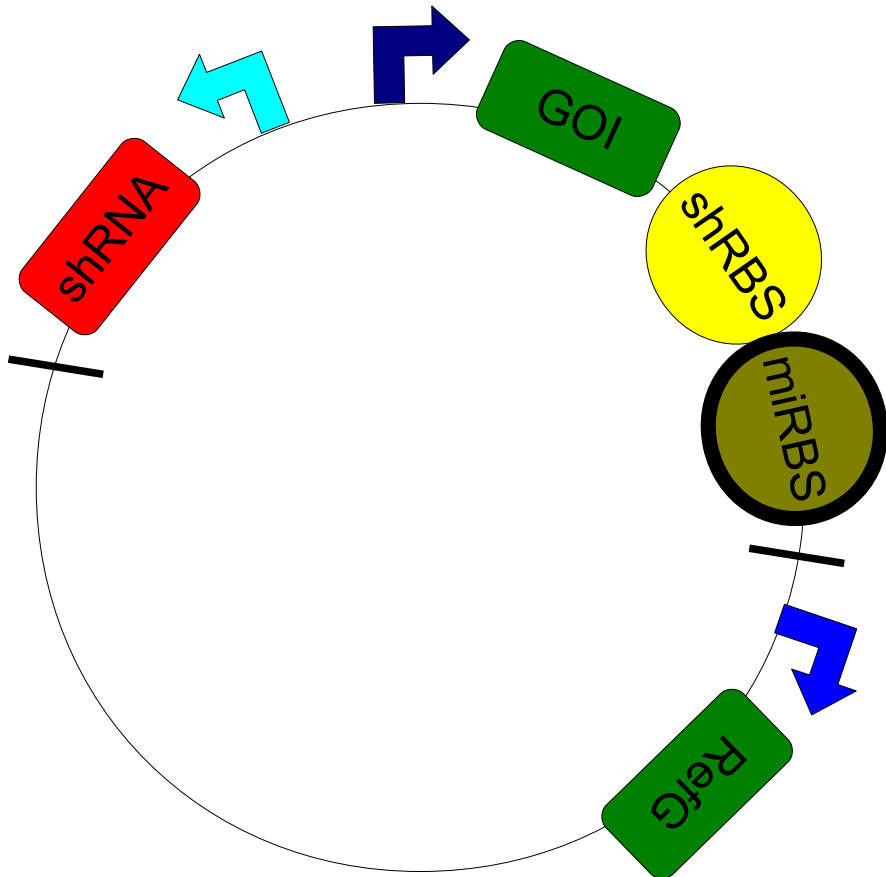
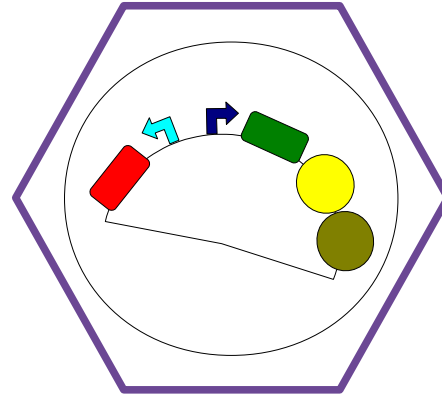
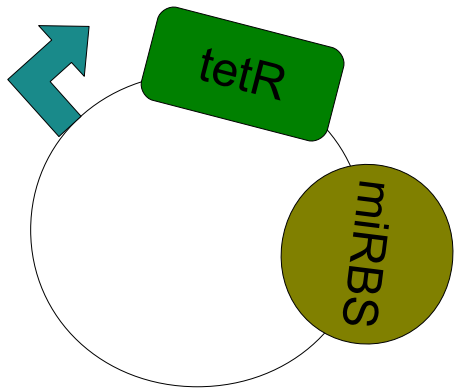
Expression Control:

→ Characterized promoters

Tissue Specificity:

→ Characterized tissue specific promoters

→ Links to tissue specific promoter databases?



Regulation by tissue specific miRNAs:

Choose target:

hsa_Liver

Choose off-targets:

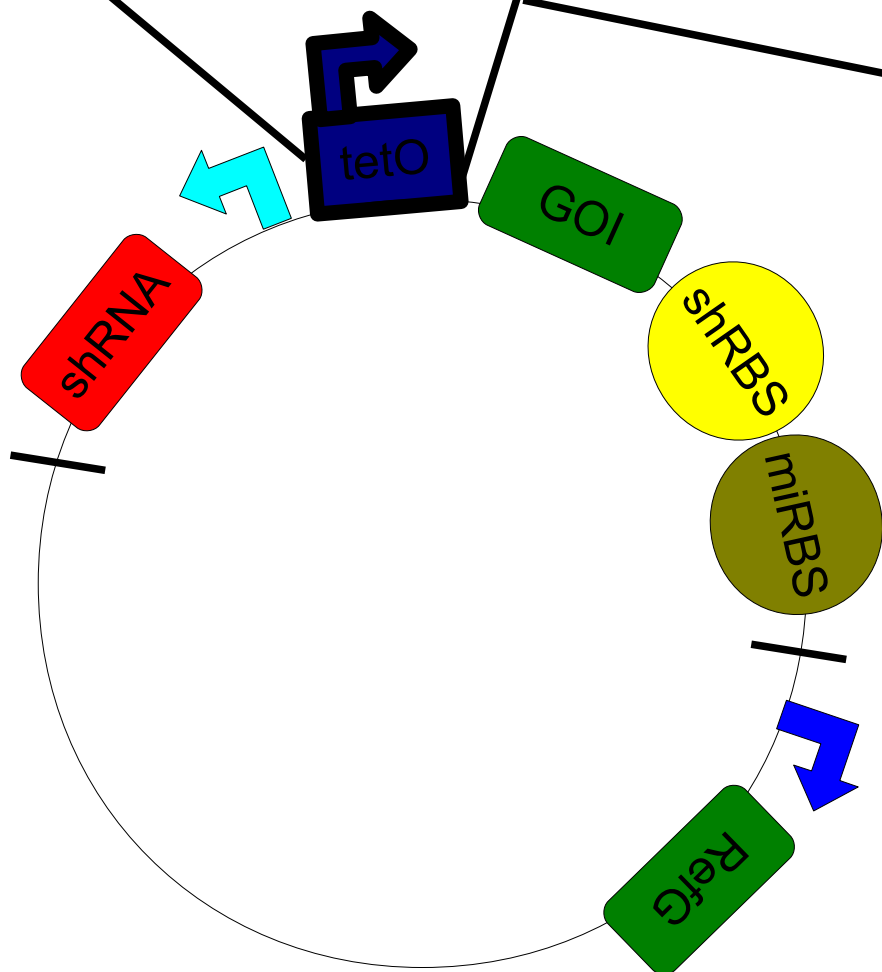
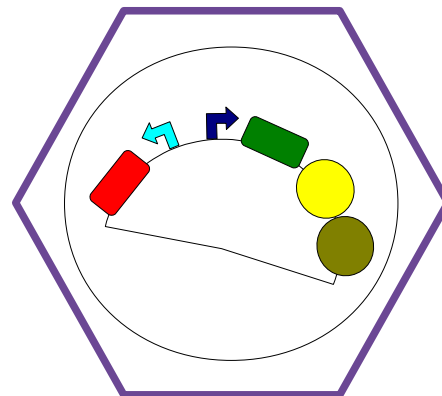
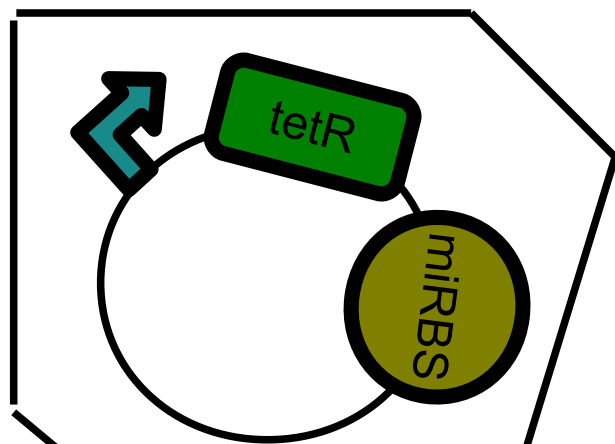
hsa_Pancreatic-islets

hsa_Heart

Upload your own miRNA profile ...

→ Suggest miRNA very low in target (there are many) and high in all off-targets

→ Our characterized miRNA binding sites



Regulation by tissue specific miRNAs:

Choose target:

hsa_Liver

Choose off-targets:

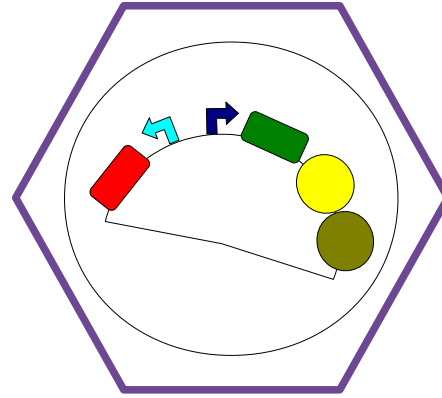
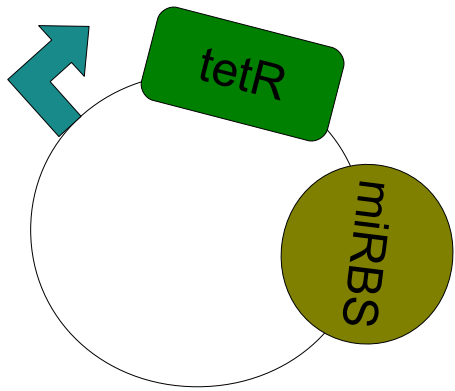
hsa_Pancreatic-islets

hsa_Heart

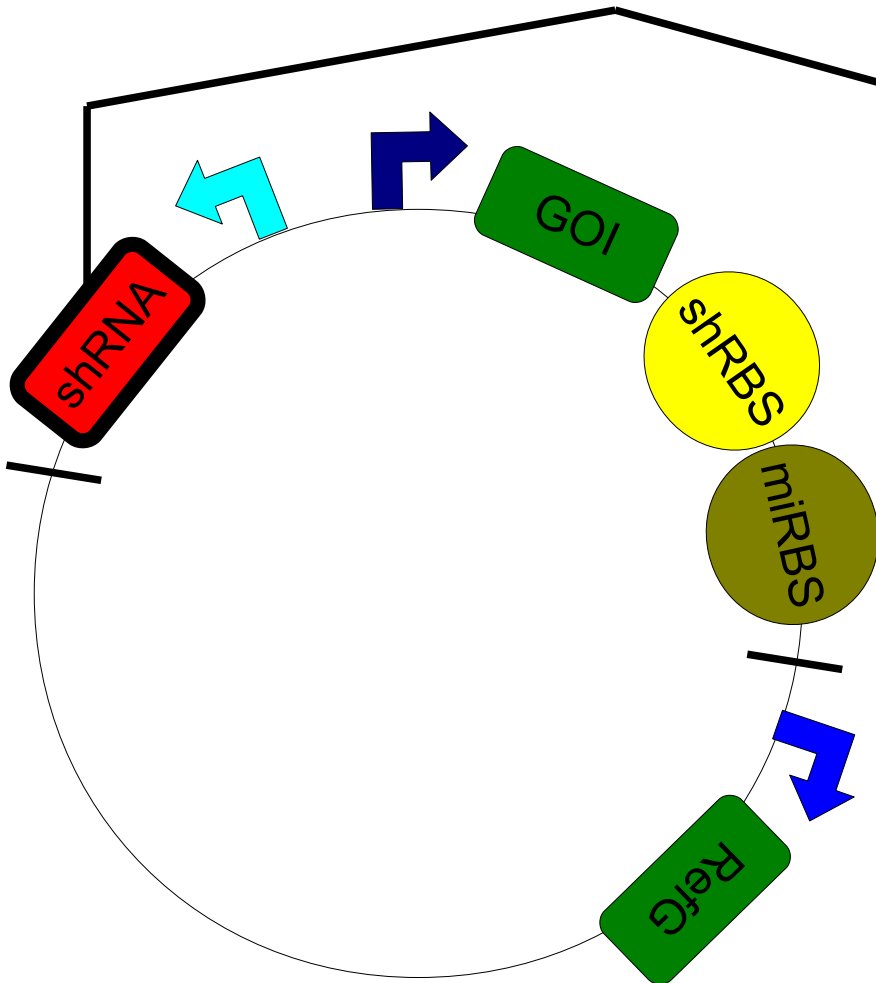
Upload your own miRNA profile ...

→ Suggest miRNA high in target and very low in all off-targets (there are many).

→ Our characterized miRNA binding sites

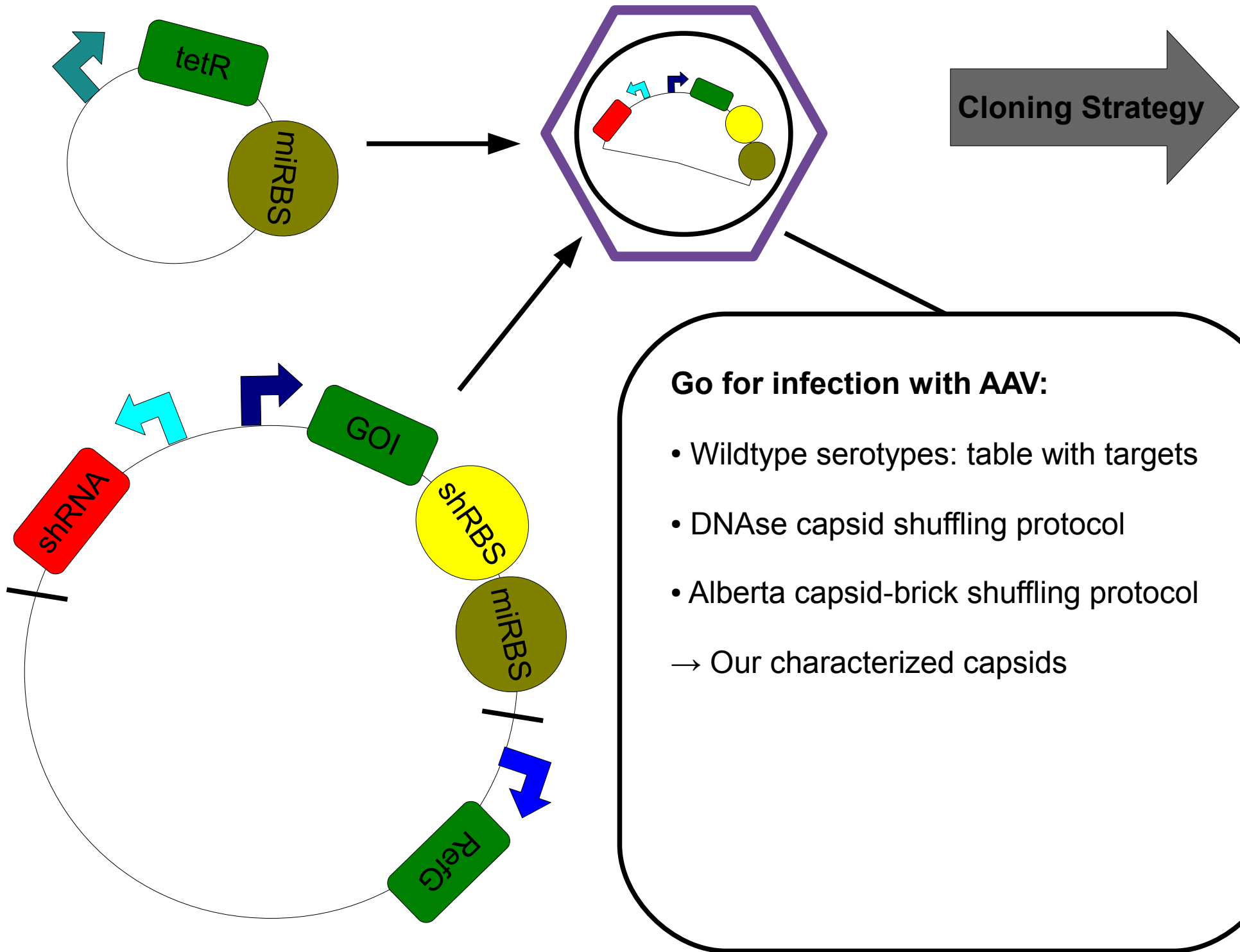


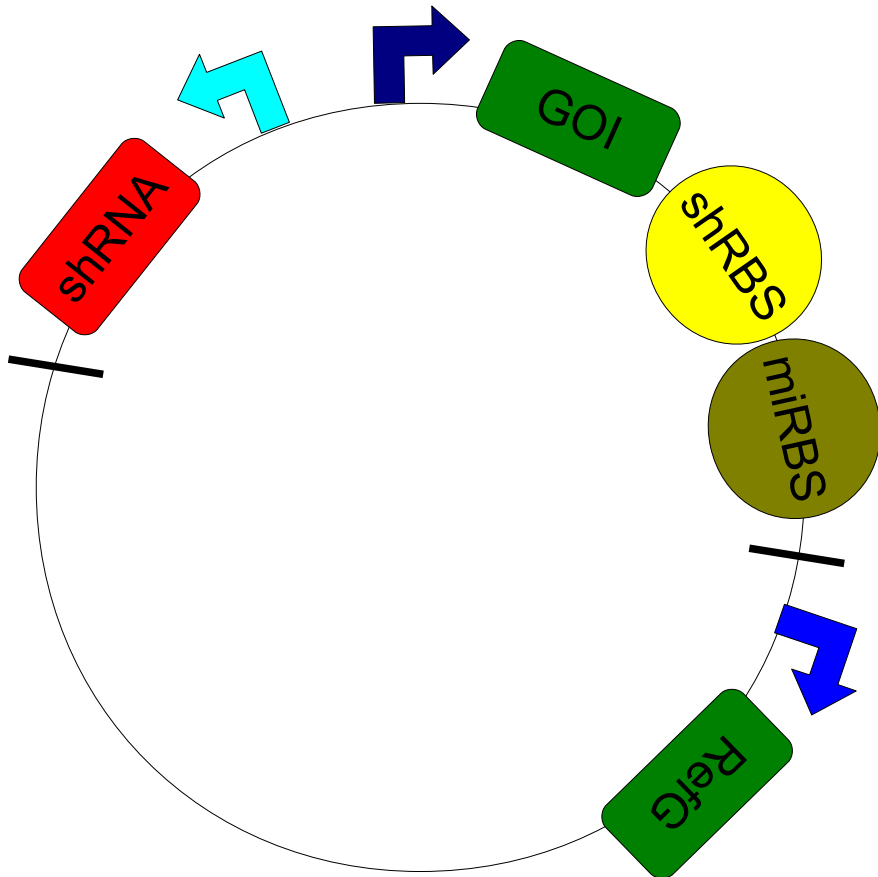
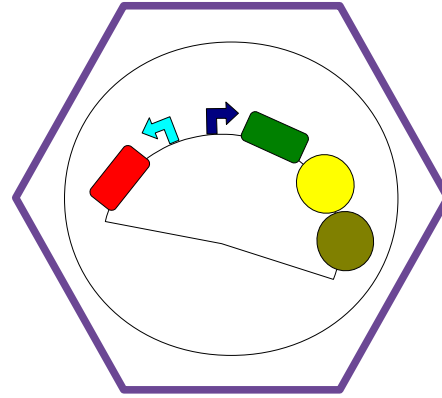
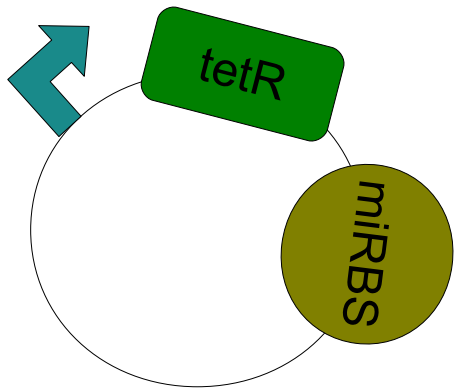
Cloning Strategy



Choose shRNA:

- Our characterized ones
- Link to shRNA design website

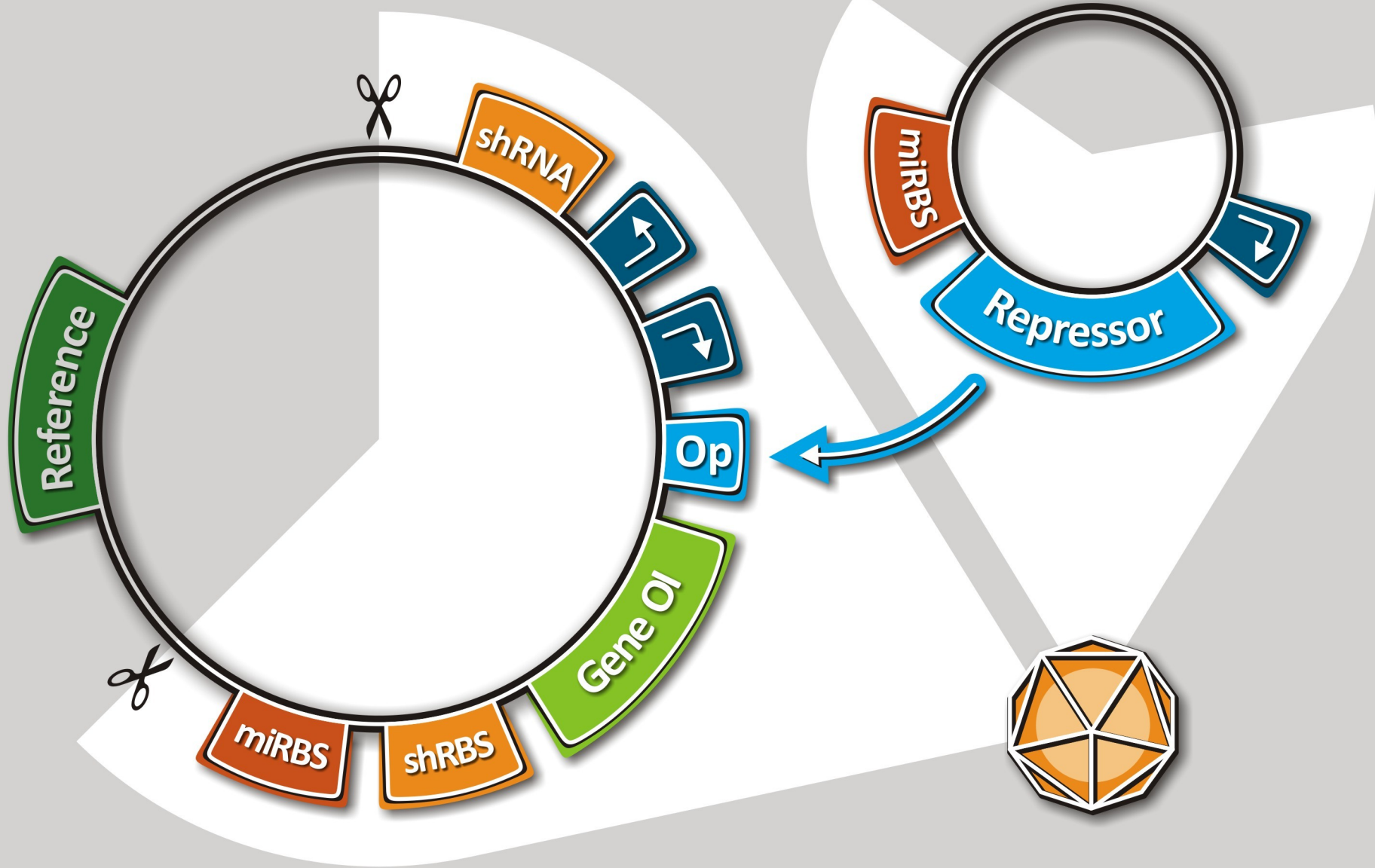




Cloning Strategy:

How to put your constructs together from our parts in the fastest way possible!

→ Give precise protocol with the user defined parts.



Timeline

September 2. half

Quick and Dirty measurements

Testing of shRNAs
with different BS

First Data flow
from wetlab to modelling

October 1st half

Standardized Construct
measurements

Model predictions
testet in wetlab

First Model
improvement round

October 2nd half

2nd prediction round

2nd Model improvement round