Notebook:

28th June — 1st July

Sequence the plasmid of bistable switch from LOU Chunbo and make clear of the conditions of it.
Change the backbone of bistable switch to pSB1C3 named BS1C3.

2nd July — 8th July

Count the green colonies in which E. coli expressing GFP on LB plate as well as the red colonies in which E. coli expressing mRFP to observe original bistable switch after transformation by using fluorescence microscope.
Analyze the expression of GFP and mRFP in bistable switch on normal condition by using flow cytometry.

9th July — 21th July

Construct the library of the bistable switch changing the RBS of cI434 gene.
Count the green colonies and the red colonies of each one of the bistable switch library, observing that BS1C3-68(the 68th of the bistable switch library) is nearly 1:1 in the ratio of red colonies to green colonies and BS1C3-42 is nearly 3:1 in the ratio of red colonies to green colonies.

22th July — 18th Aug

Reconstruct the pBAD_TPP ribozyme_GFP_terminator parts with ZHAO Yangyang：

19th Aug — 30th Aug

Construct pBAD_TPP ribozyme_mcherry_terminator parts with ZHAO Yangyang.
Mutate the first 36bp of GFP sequence of the given plasmid from J_rg S. Hartig into the first 36bp of GFP part in E0040 with ZHAO Yangyang.

31st Aug — 28th Sep

Apply the RNA controllers to the bistable switch, mainly utilizing TPP2.5 or TPP1.20 to control the expression of cI434 respectively and Theo1G1 or TheoN8-3 to control the expression of cI in bistale switch with Yan Xiaowei and Chen Shuobin. These works include the constructions of particular colonies and investigating the influences of the ligand concentration to the ratio of green colonies to red colonies by up-regulating or down-regulating the expression of the genes.
Prepare for the parts submission with MU Tong.

29th Aug — 4th Oct

Parts document for our group.