The principle behind the adaptor is based on the fact that, translation of the leader peptide in the tnaC element determines whether or not the genes further downstream get transcribed(**Konan *et al,*2000**). The tnaC element in the tna operon is followed by a Rho binding site, and when translation occurs the rho factor does not bind to the rho binding site leading to transcription antitermination(**Transcription occurs depending on whether or not translation of tnaC has occured**) **.** Hence by replacing the constitutive RBS upstream of the tnaC element(tnaC pepetide + Rho factor binding sites) with a translational regulatory riboswitch of our choice we can convert the translational regulation into transcriptional regulation (**Chang.C.Liu *et al,*2012**). To test the adaptor we will place the before mentioned RNA thermometer(Fig 14) and pH riboswitch(Fig 15) upstream of the adaptor and CFP reporter protein downstream of the adaptor.

To test the functioning of the adapter we will place the above mentioned RNA thermometer and pH riboswitch upstream of the leader peptide element and a reporter protein downstream of the leader peptide element. This adaptor can further be used by any team which intends to convert the translational regulatory property of a riboswitch to transcriptional regulation. This adaptor is both easy to engineer and can be easily assembled into higher order function