# Week 2

- **Designing of ParABS-SMC system in *E. coli***.
  We are going to introduce *parB* gene, *parS* site and *smc-scpA-scpB* operon into *E. coli K-12 MG1655* genome. The latter encodes proteins of a SMC compllex.

  This week I've been learning pecularities of previous genetic engineering and Hi-C studies on *Bacillus subtilis* and other systems. Eventually I have deigned the main steps of *E. coli* transformation.

  I will introduce all of the components one by one using kanamycin marker, flanked by FRT-recombination sites. When a component is successfully inroduced into the genome, we will cleave the marker by Flp-recombinase.

- **New connections**
  During the week we have met people that are going to do Hi-C experiments on *Archaea* and the others who will supprot them by data analysis. They even visited our seminar on Thursday. We are going to collaborate with these two groups to study genome spatial organisation, especially chromosome segregation in *Archaea*.