Develop a statistical method to quantify priority effects
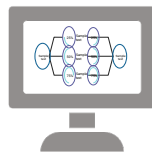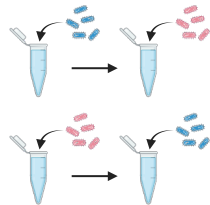
Aim 1: New Modeling Approach

- Mathematical foundation
- Does the method work *in silico?*

Aim 2: Experimental Validation

- Manipulation of species introduction
- Does the method work *in vitro?*

Aim 3. When are priority effects strong on the human gut microbiota?

Influences of... Geographic regions?

Age?

Diets?

Health states?

Application to observational data!