

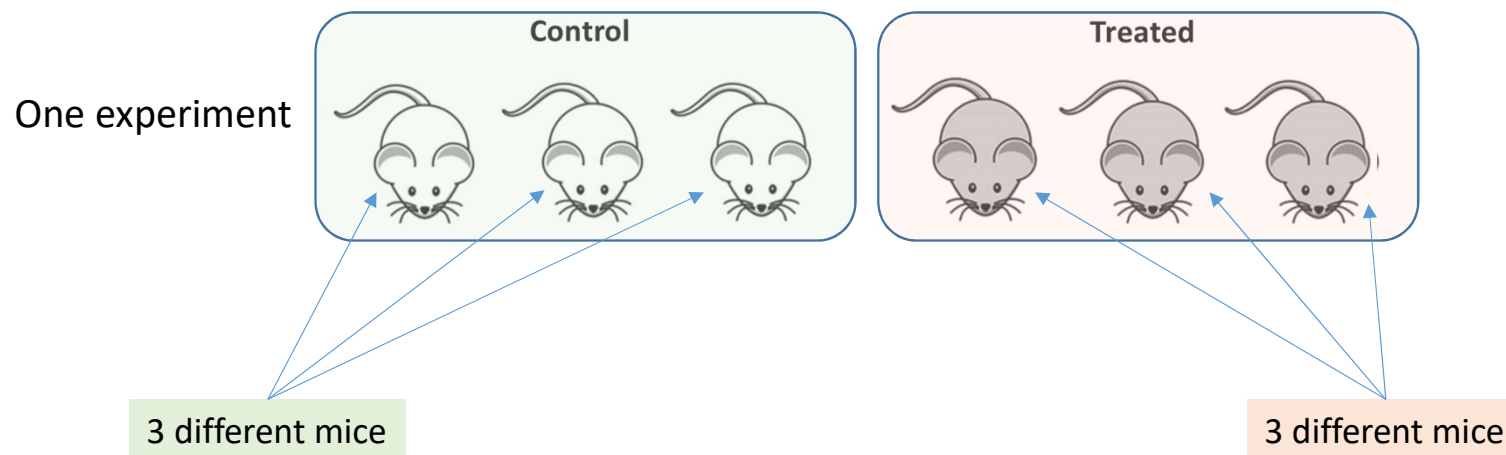
Experimental design

Comparison between 2 or more groups

Experimental design

Independent design

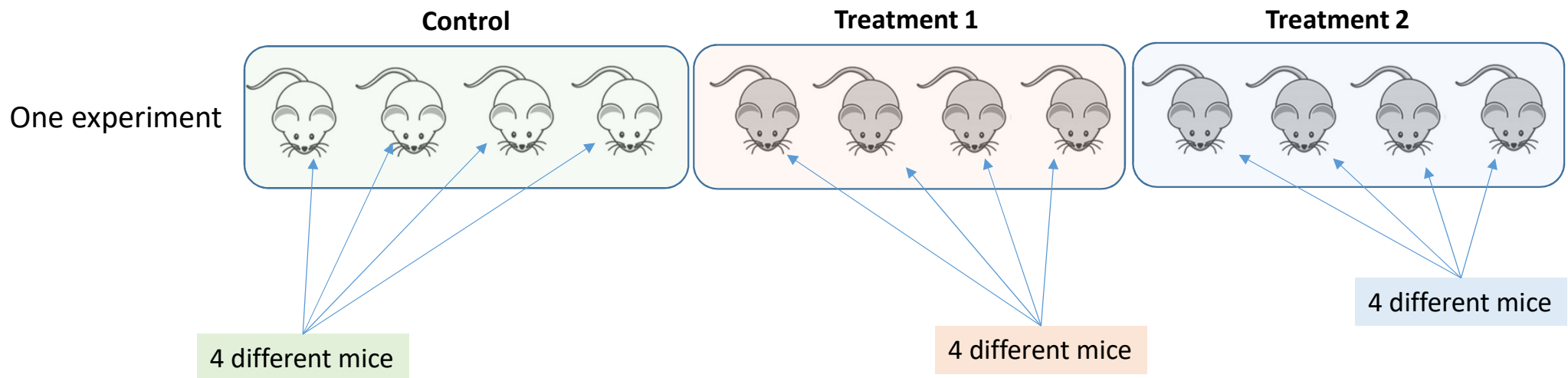
- **Independent**: 2 or more groups in an experiment.
 - **Example 1**: 2 groups with $n=3$ in the control group and $n=3$ in the treated group



Experimental design

Independent design

- **Independent**: 2 or more groups in an experiment.
 - **Example 2**: 3 groups with $n=4$ in the control group and $n=4$ in each treated group

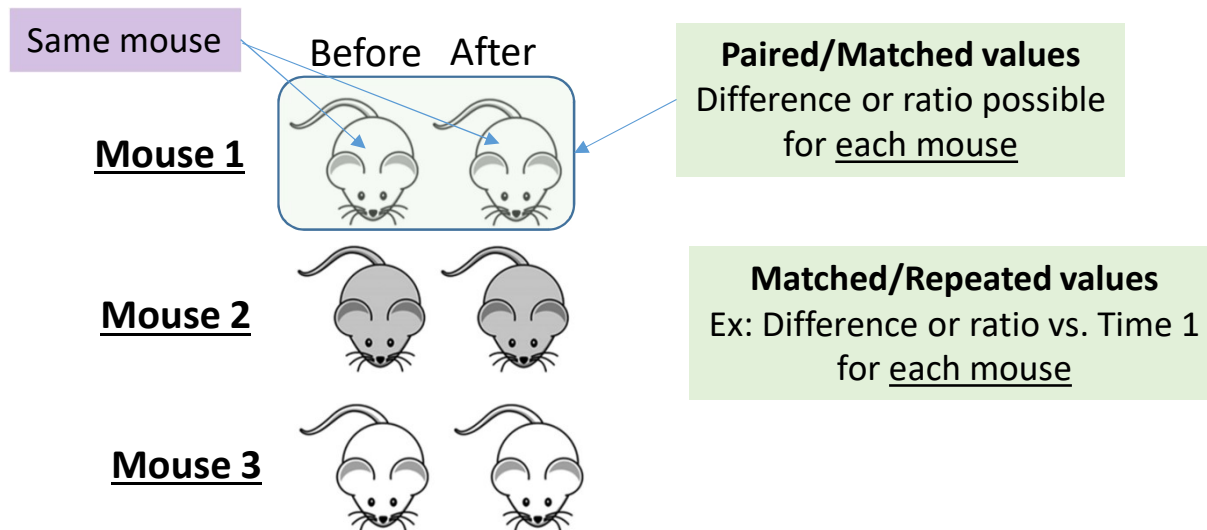


Experimental design

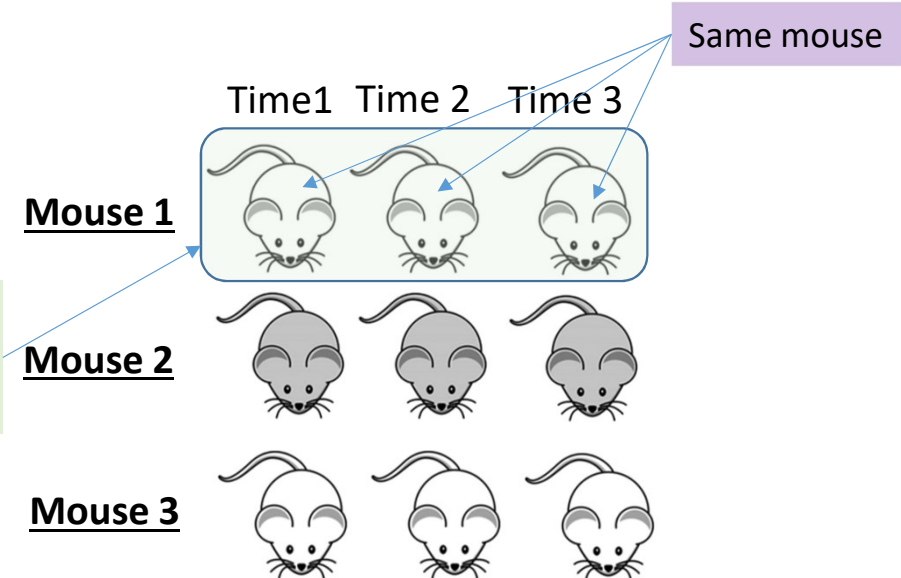
Matched design

- **Matched** = repeated = dependent = paired (if 2 groups)
 - Design 1: 2 or more measures per animal/subject/petri dish

Example 1: before/after treatment measures



Example 2: 3 time points



Experimental design

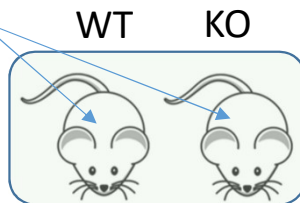
Matched design

- **Matched** = repeated = dependent = paired (if 2 groups)
 - Design2: Within each experiment: same conditions (e.g. genotype, treatment ...)

Example 1: 3 independent experiments
2 mice within each: WT and KO

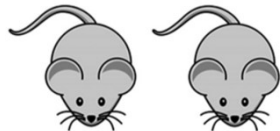
2 different mice

Experiment 1

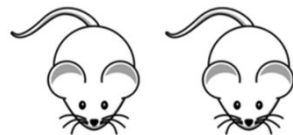


Matched/Paired values
Each KO mouse is matched with a WT
Difference or ratio possible
for each experiment

Experiment 2



Experiment 3

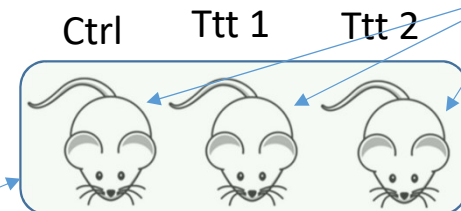


Matched values
Ex: Difference or ratio vs. Time 1
for each experiment

Example 2: 3 independent experiments
3 mice within each: control and 2 treatments

3 different mice

Experiment 1



Experiment 2



Experiment 3

