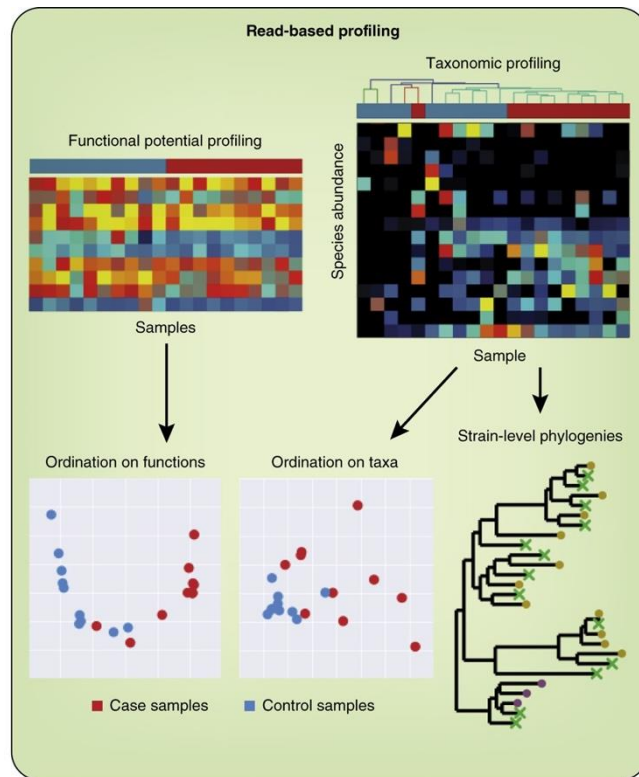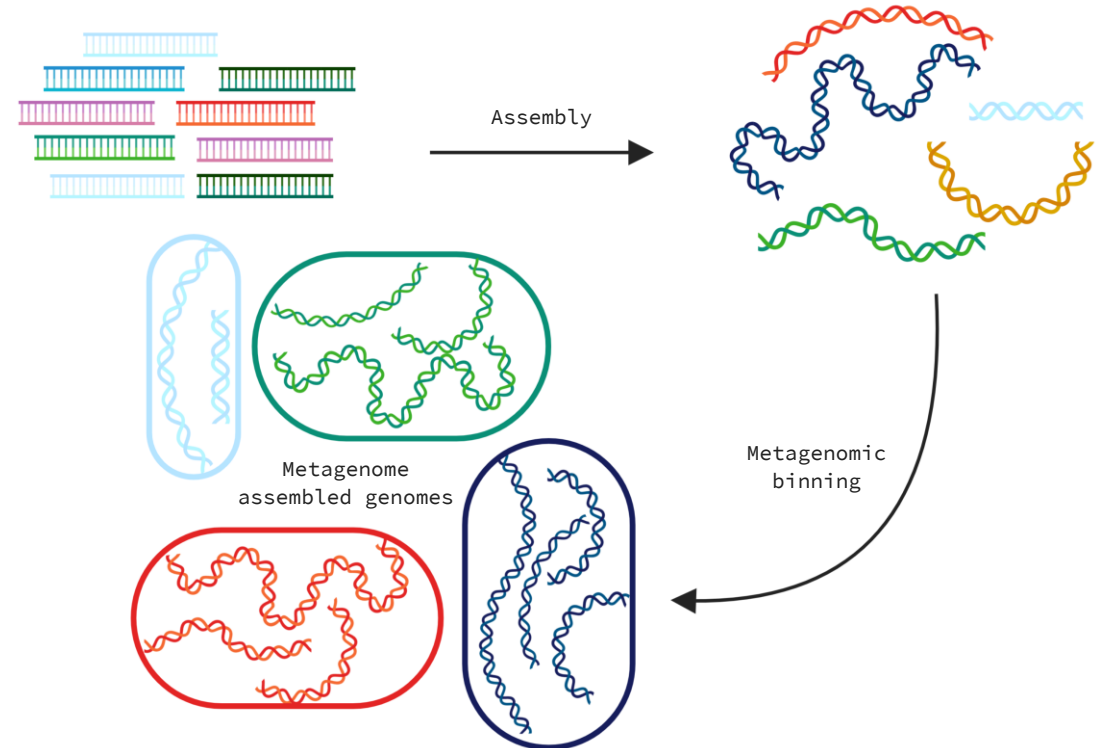# MBDP Metagenomics

Final wrap-up
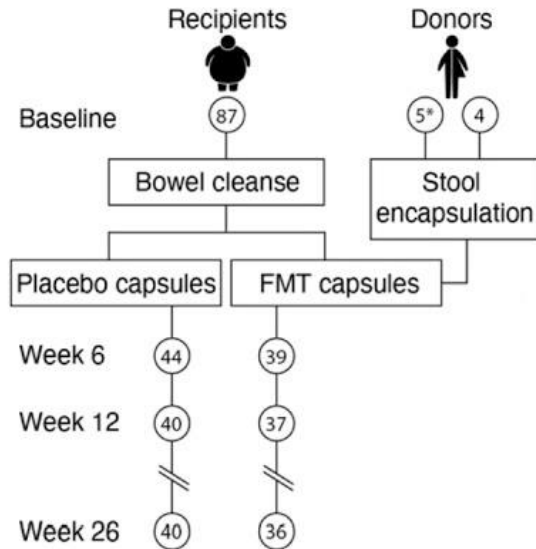
Microbial metagenomics
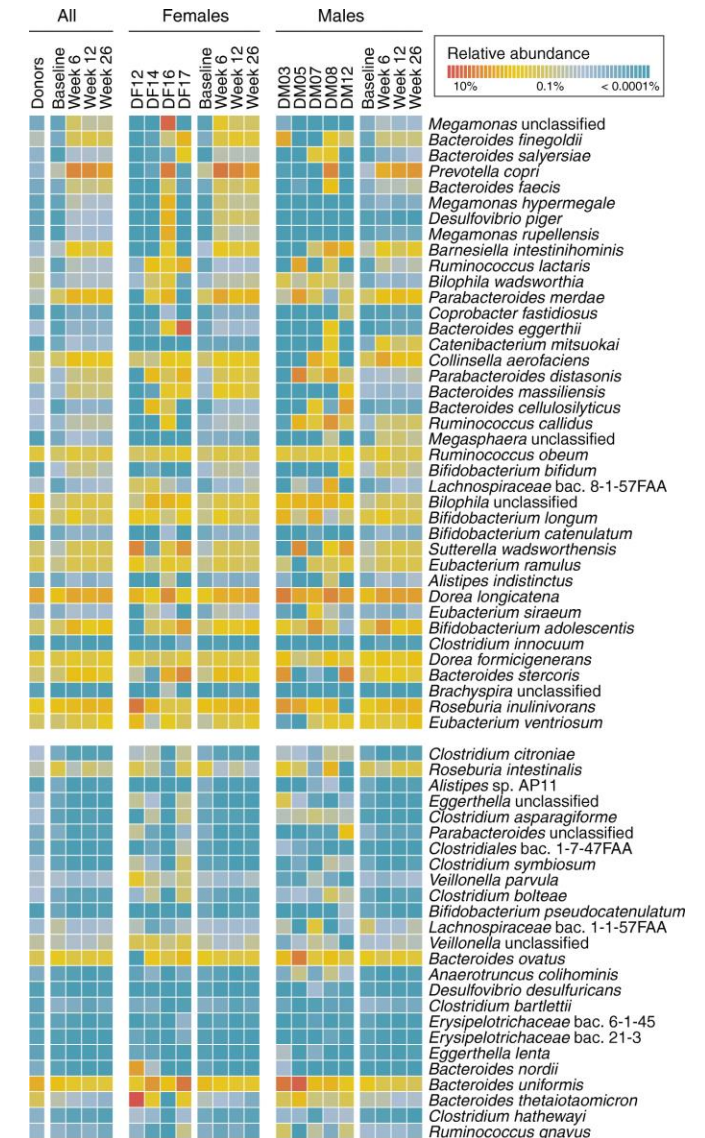
Read-based taxonomic profiling
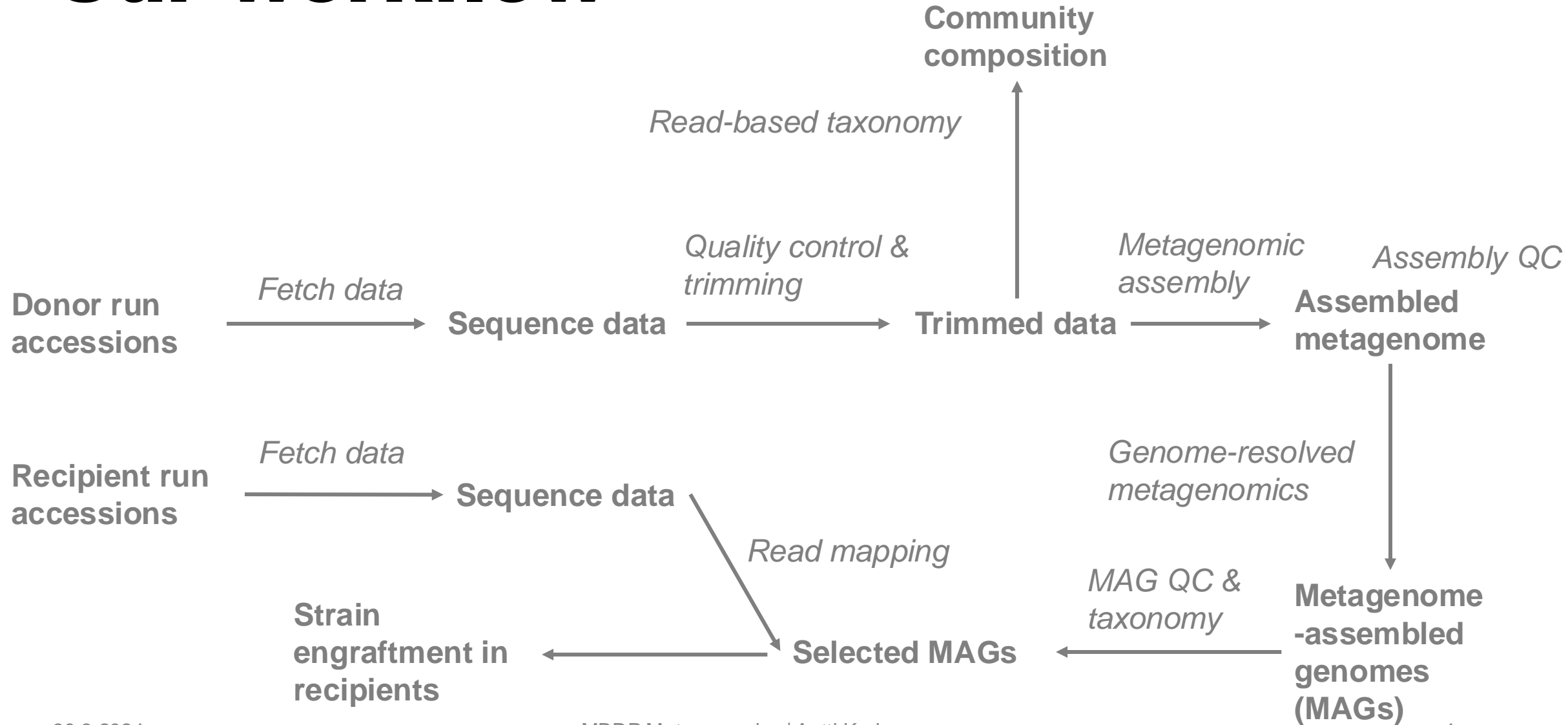
Genome-resolved metagenomics

Fecal microbiota transplantation (FMT) experiment

In a new double-blind randomized control trial of FMT, researchers examined 87 adolescents with obesity receiving either multi-donor FMT or placebo

Our workflow

Community composition

Read-based taxonomy

Quality control & trimming

Metagenomic assembly

Assembly QC

Donor run accessions

Fetch data

Sequence data

Trimmed data

Assembled metagenome

Recipient run accessions

Fetch data

Sequence data

Genome-resolved metagenomics

Read mapping

MAG QC & taxonomy

Strain engraftment in recipients

Selected MAGs

Metagenome -assembled genomes (MAGs)

Results?

Learning outcomes

By completing this course, you will:

- Have a basic understanding of metagenomic sequencing technologies and bioinformatic approaches to analyse metagenomic data

- Be able to plan and execute a metagenomic sequencing project depending on the research questions.

- Have an up-to-date knowledge on the bioinformatic tools and best practices for the analysis of metagenomes.

- Be able to choose and critically evaluate new tools and approaches for specific research question

- Have confidence to learn and implement new bioinformatic methods using available documentation

Questions / Comments