

# Bioinformatic Analyses at the IMI

- ▶ **DNA-seq** (targeted, WES, WGS; matched- and non-matched; color space): variant calling, mutational patterns, clonal evolution, ethnicity, relation
- ▶ **RNA-seq** (bulk): expression analysis, fusion genes
- ▶ **Single cell omics** (RNA-seq, ATAC-seq): expression analysis, clustering, velocity
- ▶ **Microarrays** (SNP, aCGH, gene expression, 850K, 450K): CNV calling, expression analysis, methylation analysis
- ▶ **Bisulfite sequencing** (RRBS, WGBS): methylation
- ▶ **ChIP-seq**: transcription factor binding sites, histones
- ▶ **4C-seq, Hi-C-seq**: 3D chromatin structure
- ▶ **ATAC-seq**: chromatin structure
- ▶ **STARR-seq**: enhancer structure
- ▶ **Additionally**: pathway analyses, geneset enrichment, data integration and annotation

# Bioinformatische Analysen am IMI

- ▶ **DNA-seq** (targeted, WES, WGS; matched- und non-matched; color space): Varianten Calling, Mutational Patterns, Klonale Evolution, Ethnizität, Verwandtschaft
- ▶ **RNA-seq** (bulk): Expressions-Analyse, Fusionsgene
- ▶ **Single cell omics** (RNA-seq, ATAC-seq): Expressions-Analyse, Cluster-Analyse, Velocity
- ▶ **Microarrays** (SNP, aCGH, gene expression, 850K, 450K): CNV Calling, Expressions-Analyse, Methylierungs-Analyse
- ▶ **Bisulfite sequencing** (RRBS, WGBS): Methylierung
- ▶ **ChIP-seq**: Transkriptionsfaktor Bindungsstellen, Histone
- ▶ **4C-seq, Hi-C-seq**: 3D Chromatin Struktur
- ▶ **ATAC-seq**: Chromatin Struktur
- ▶ **STARR-seq**: Enhancer Struktur
- ▶ **Zusätzlich**: Pathway-Analysen, Geneset Enrichment, Datenintegration und -annotation