

Building monocyte derived macrophage behavior

Experimental steps

This tab includes data related to wet-lab experiments, such as laboratory protocols and FASTQ files, done on monocyte derived macrophages to calibrate and validate intracellular models of monocyte derived macrophages.

Bioinformatics steps

This tab includes data related to bioinformatics analysis, such as scripts and pipelines, used to analyze data gathered in the wet-lab part.

Modeling steps

This tab includes data related to the intracellular mathematical model of macrophages, including literature used to build the models, links to scripts, results, etc.

Experimental flow for coculture experiment

Sample metadata

Monocyte derived macrophage **PBMC Isolation Protocol** M-CSF Differentiation and **Protocol** A. fumigatus Collect at 0, 2,4,6,8 hours Transcriptome Proteome **Blot assays** Protein measurement RNA-SEQ FASTQ files **ELISA Library Prep**

Go to bioinformatics step

Bioinformatics pipeline

Monocyte derived macrophage

FASTQ files for monocyte derived macrophage Get Nextflow pipeline MultiQC pretrim Pool samples from different runs **Adapters FASTA file Cut adapters (Trimmomatic)** Aligned reads STAR aligner (index and align) Get reference genome **Qualimap, SAM tools MultiQC Analysis scripts** DESEQ2, CHEA3, **Results**

enrichment



Mathematical modeling pipeline

Monocyte derived macrophage