

Genes and microRNAs expression signature of idiopathic pulmonary fibrosis

Christian Brion
MA. USA, 03/2022

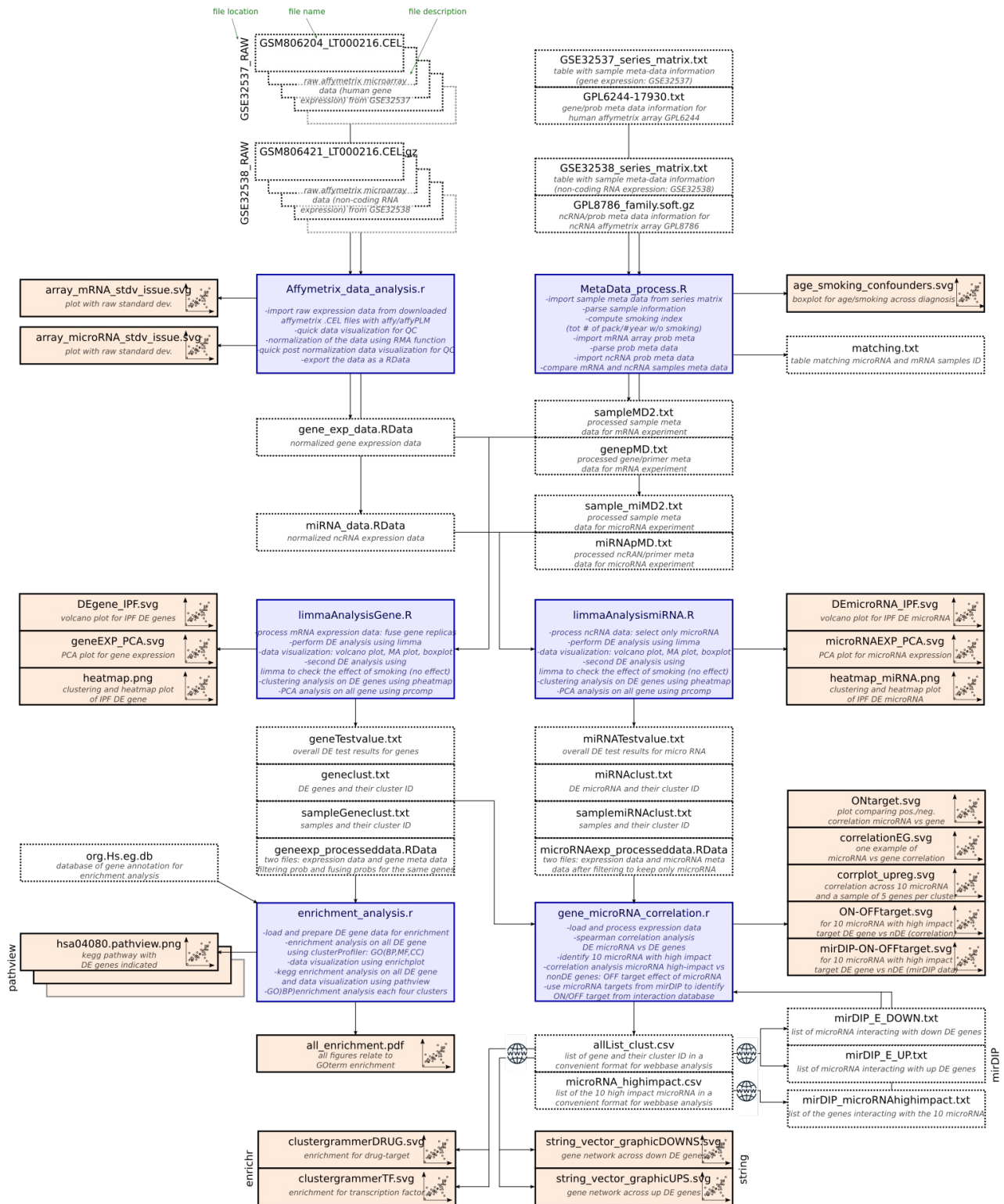
Introduction

Expression of cilium-associated genes defines novel molecular subtypes of idiopathic pulmonary fibrosis

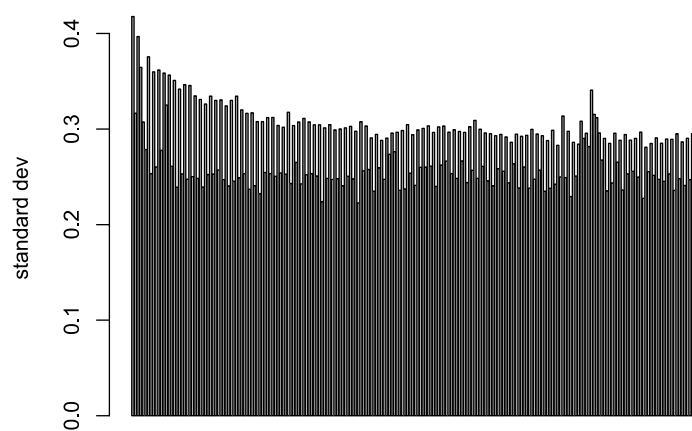
Ivana V Yang,

Rational

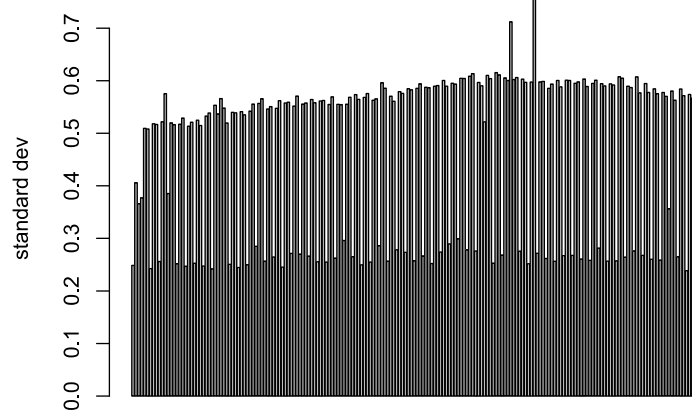
Pipeline



Data importation and normalization

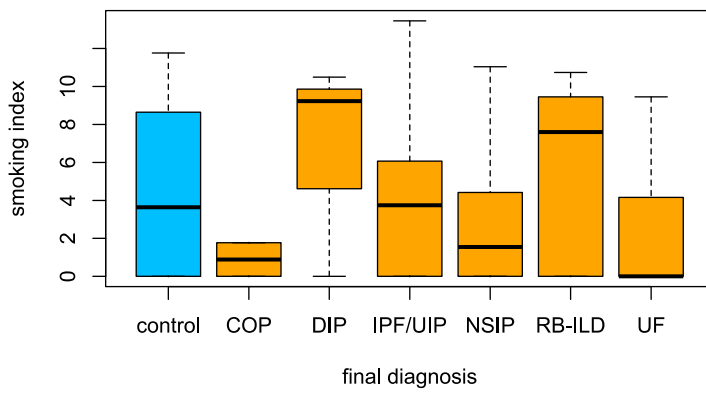
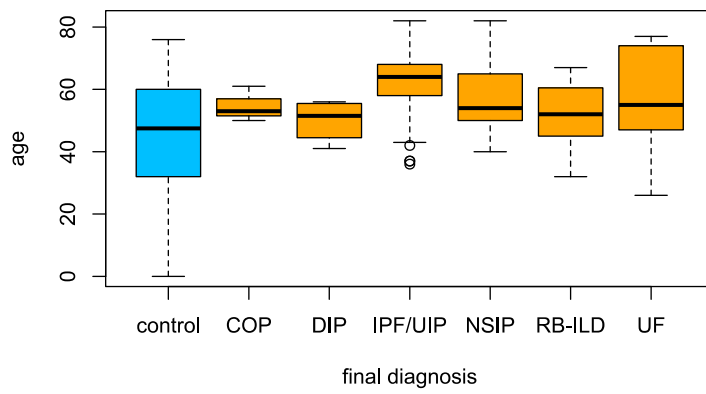


mRNA array samples



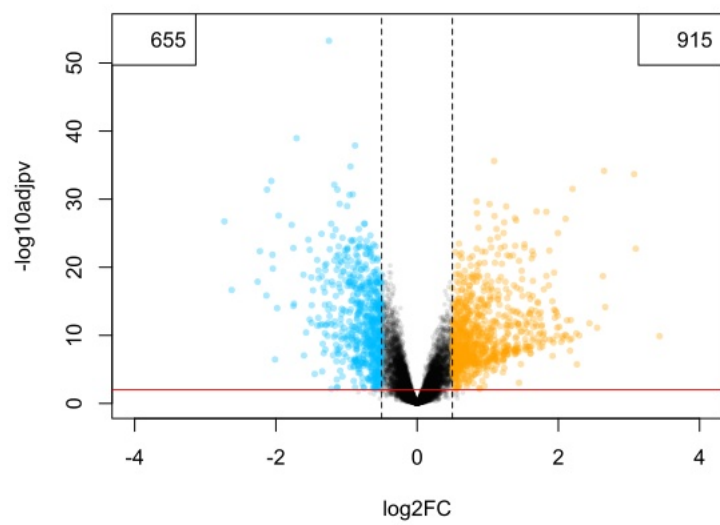
microRNA array samples

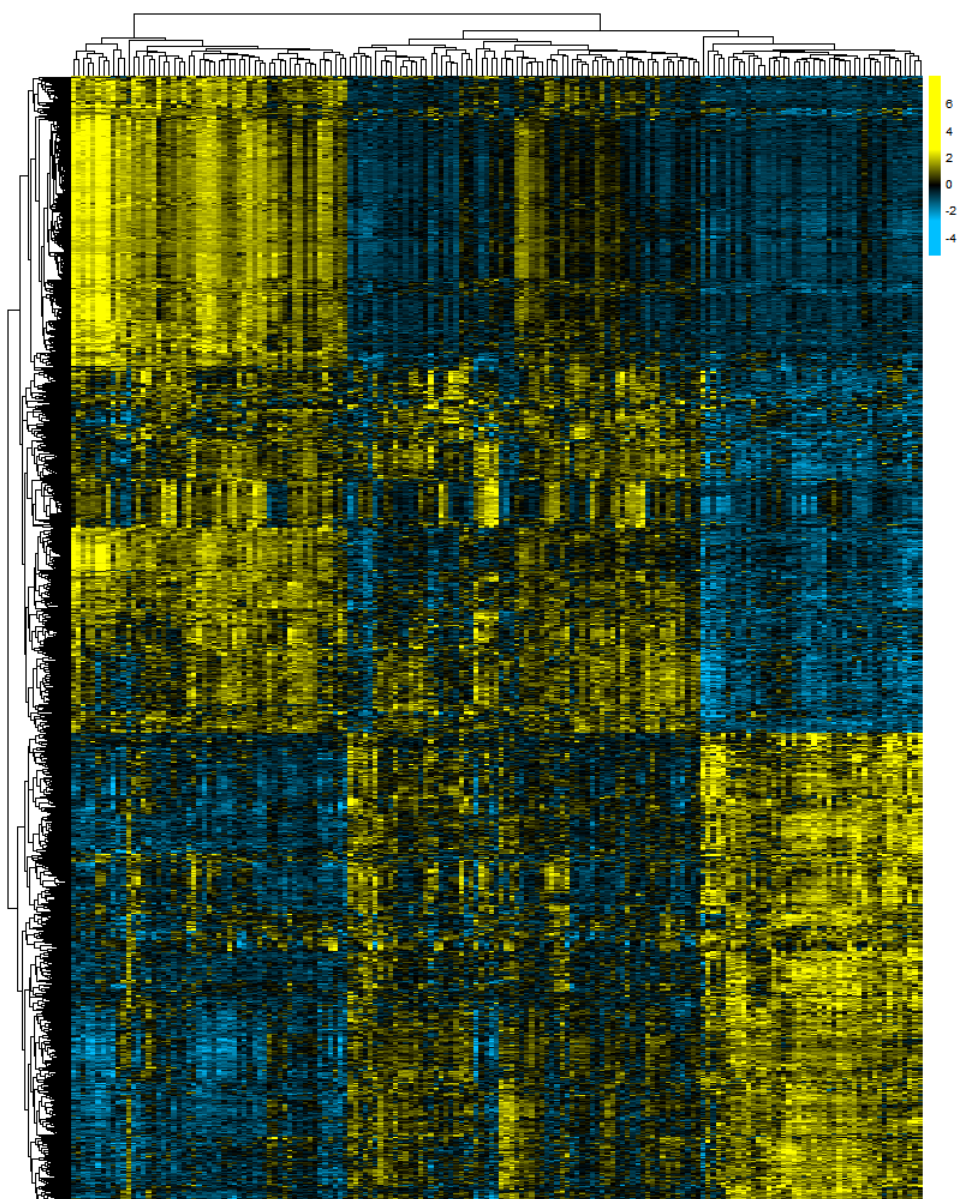
Sample meta data analysis

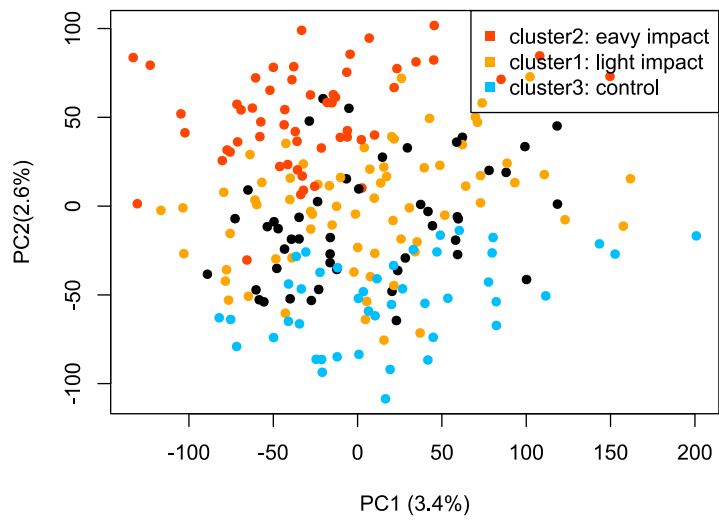


Gene differential expression analysis

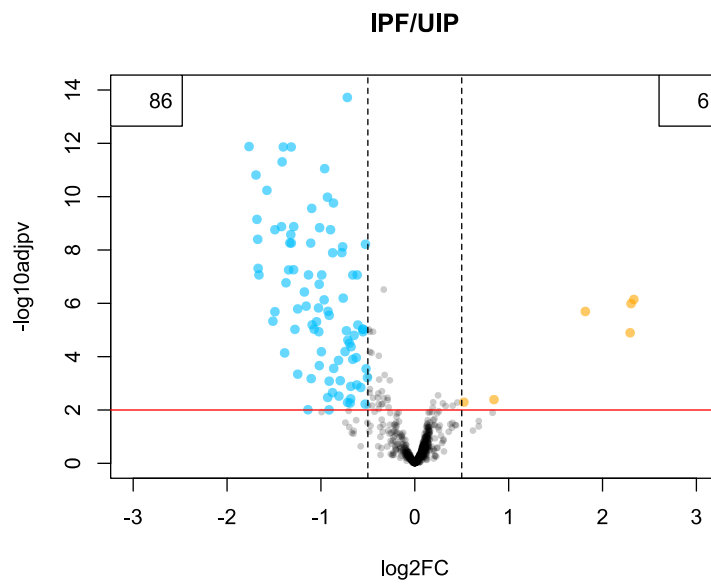
IPF/UIP

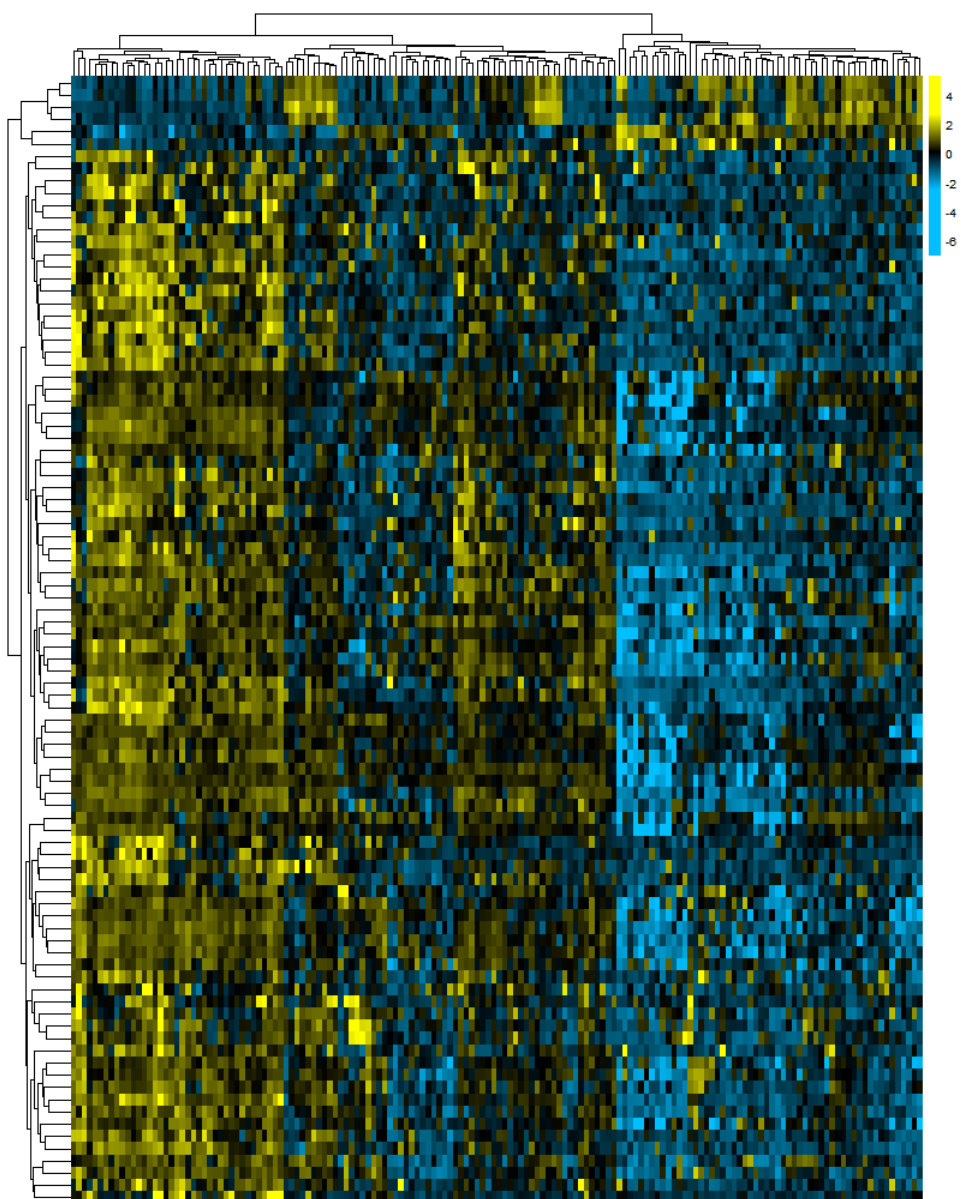


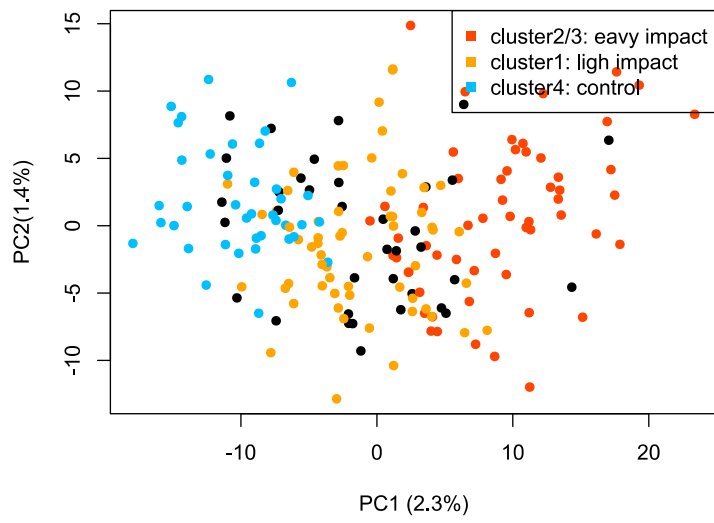




MicroRNA differential expression analysis

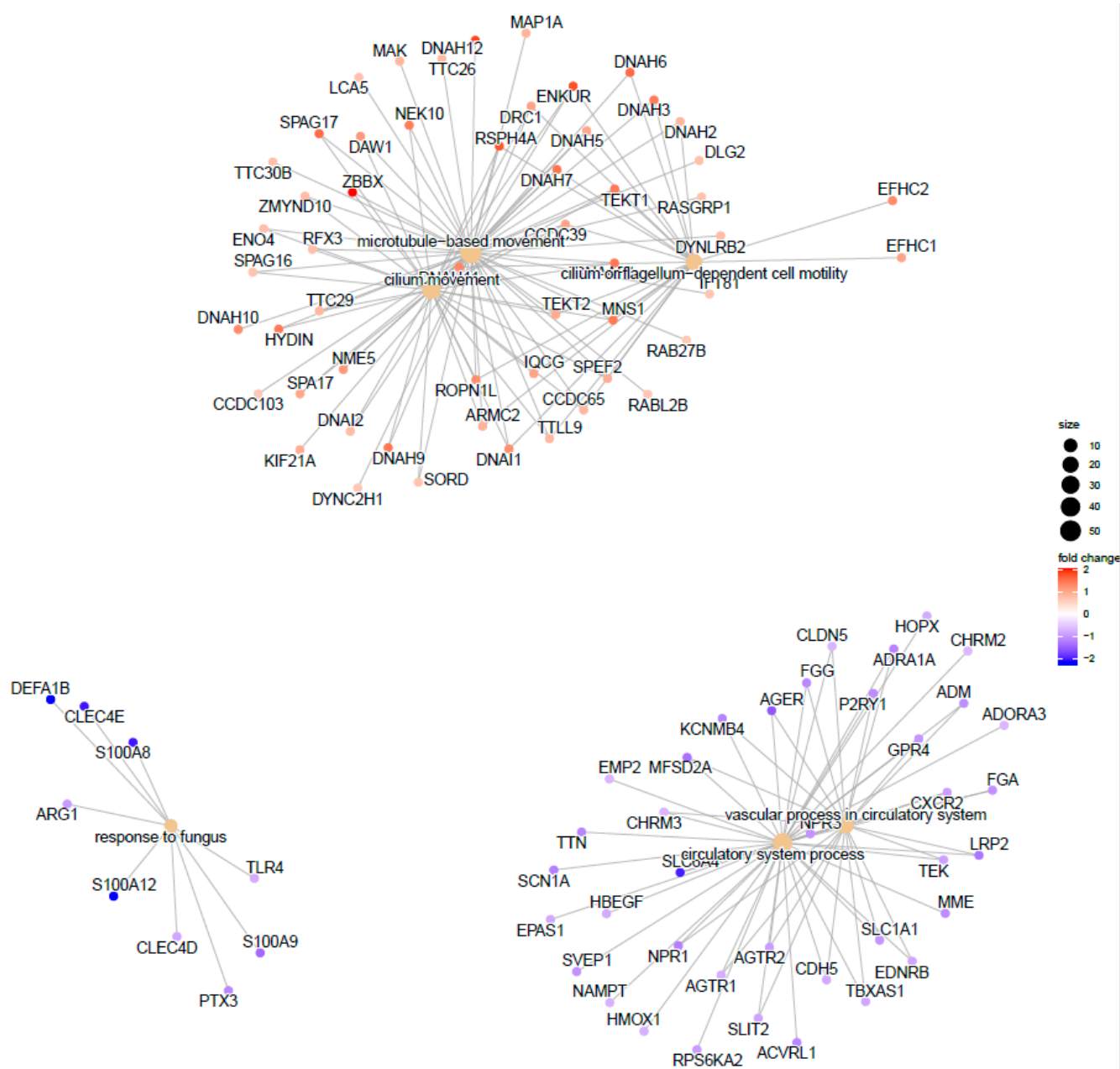


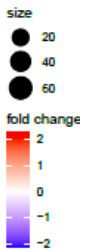
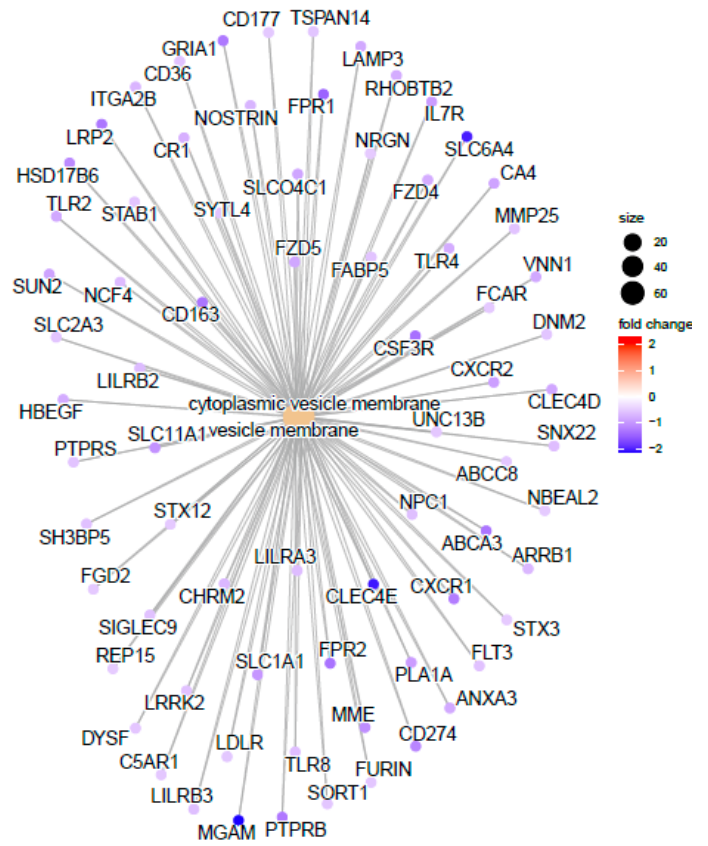
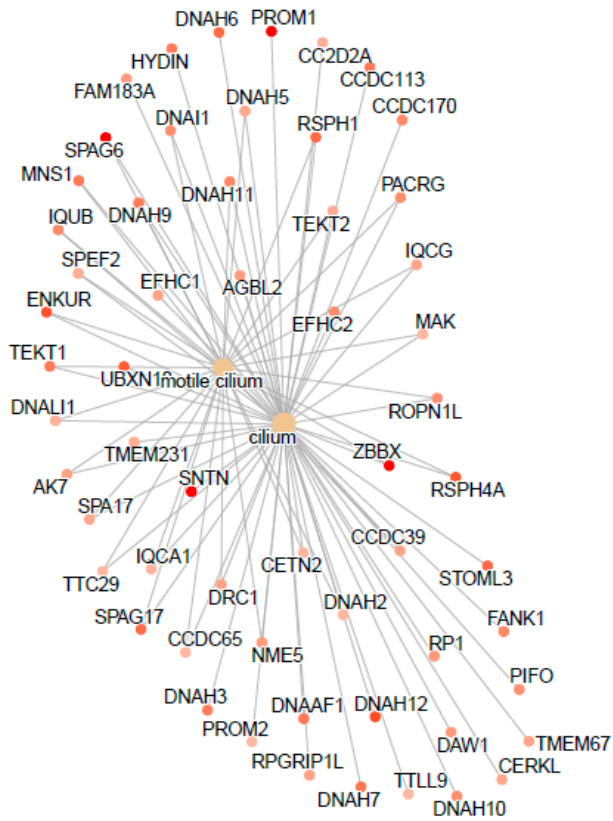
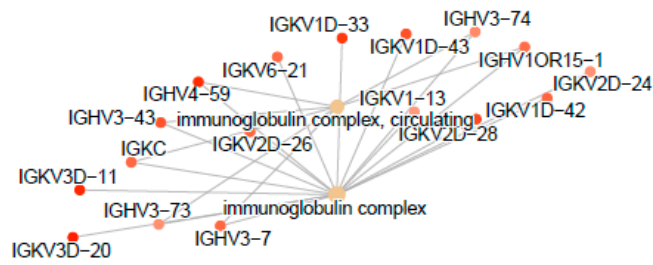




Enrichment analysis

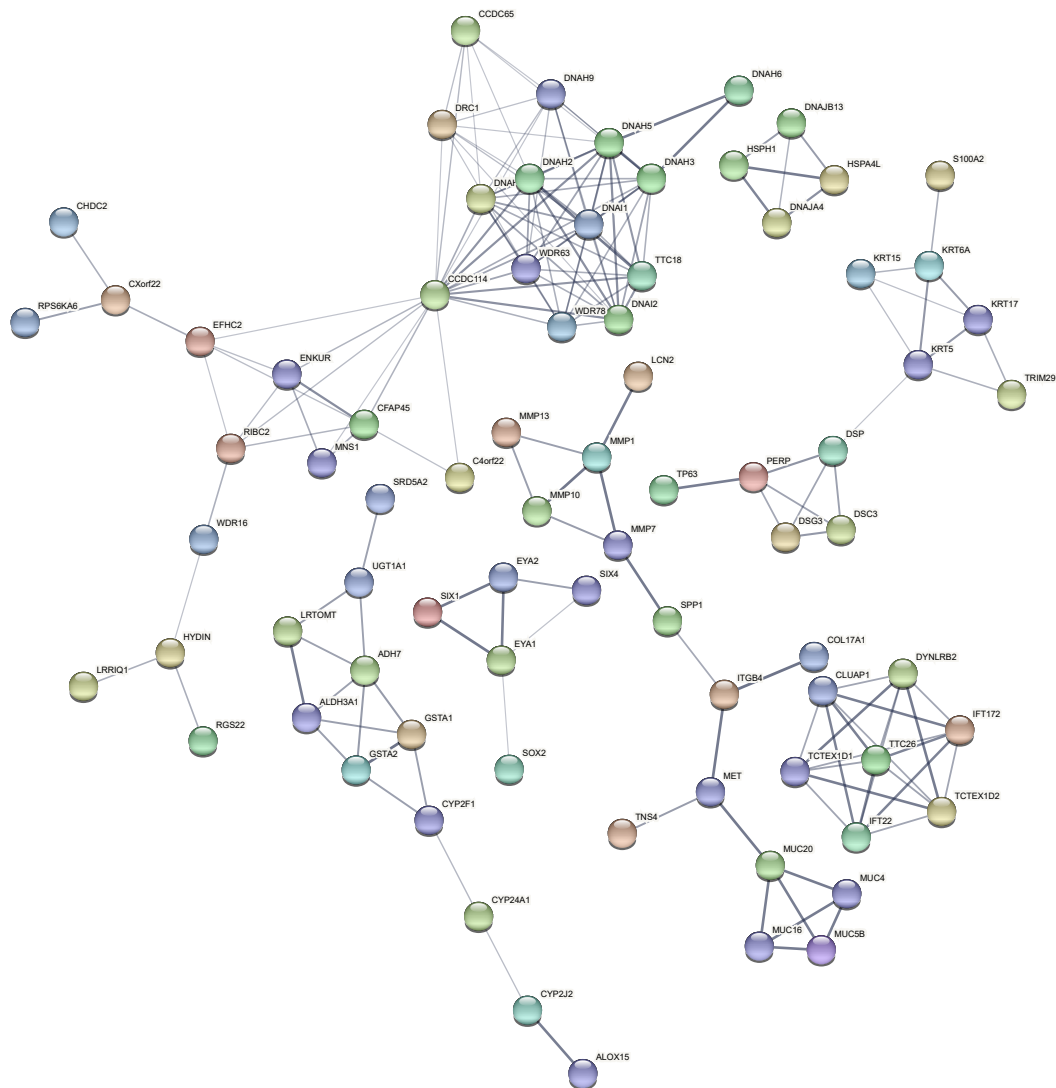
-GO term





-kegg pathway

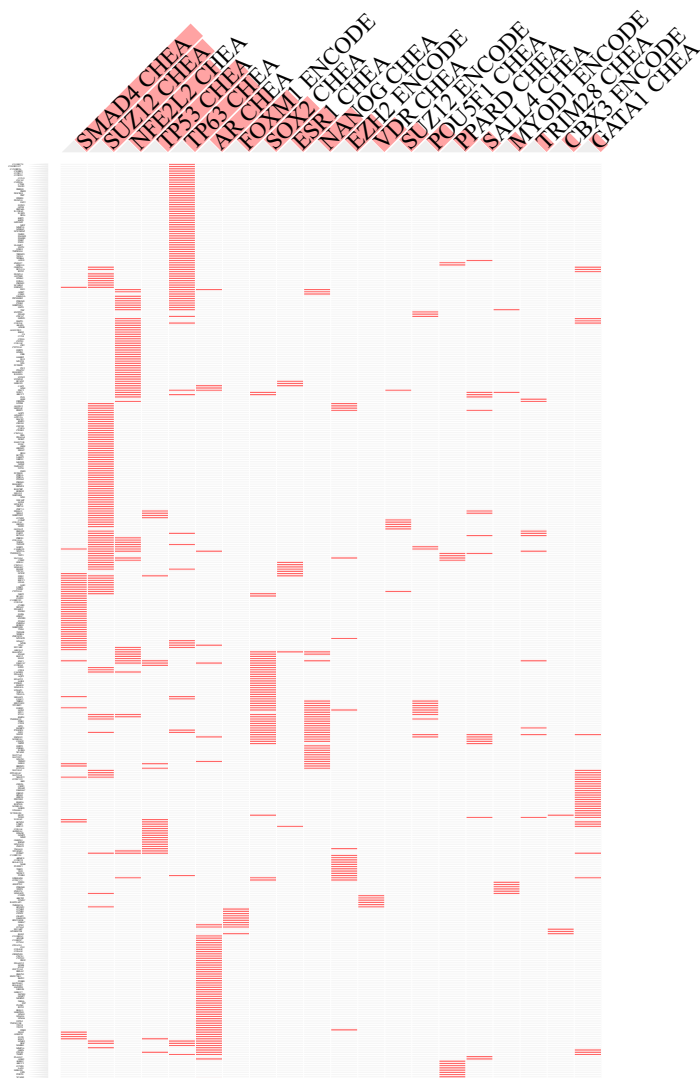
-gene network



-transcription factor

Input Genes

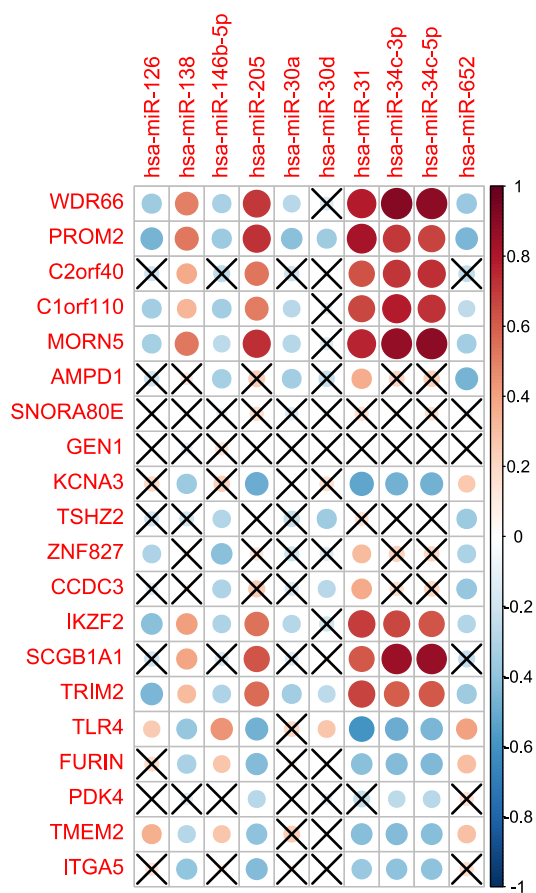
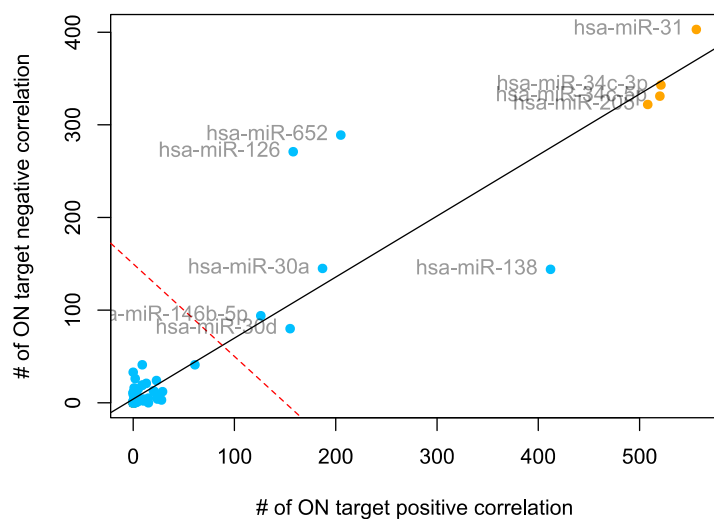
Enriched Terms

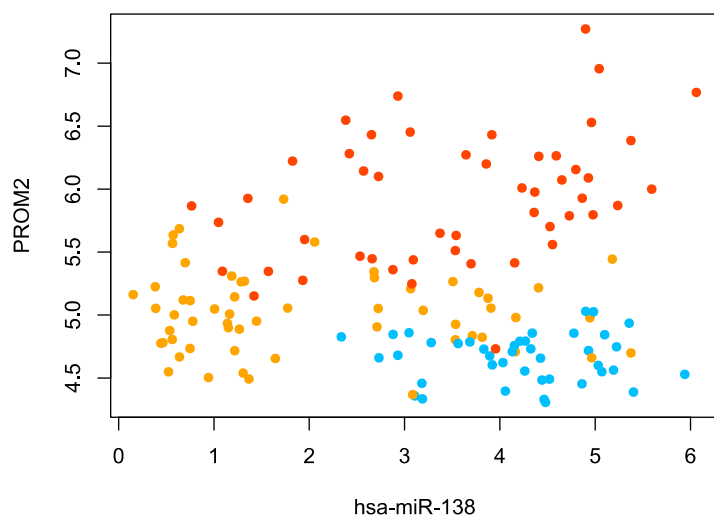
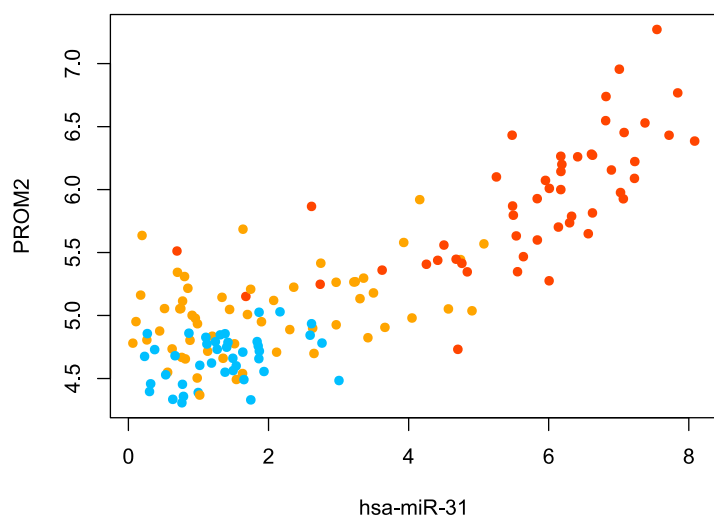


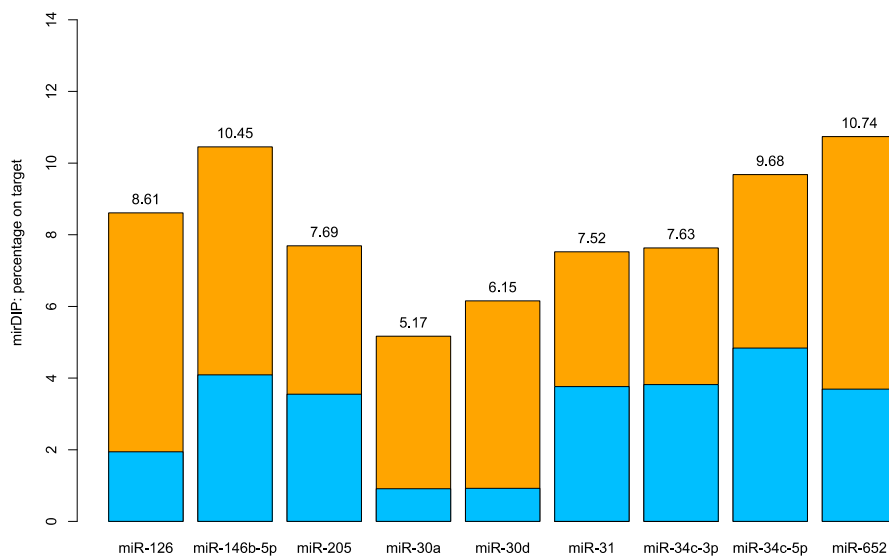
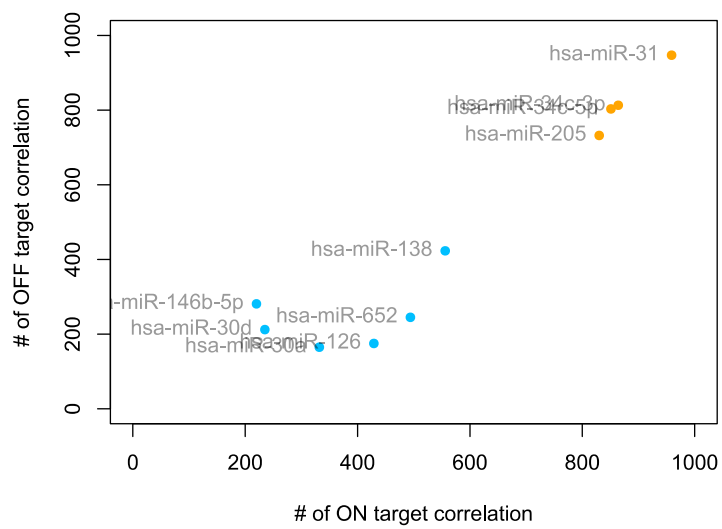
-drug target



Linking microRNA expression to gene expression changes







Discussion and perspective