

# INTERPLAY BETWEEN GUT MICROBIOME AND IMMUNE SYSTEM

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umcg



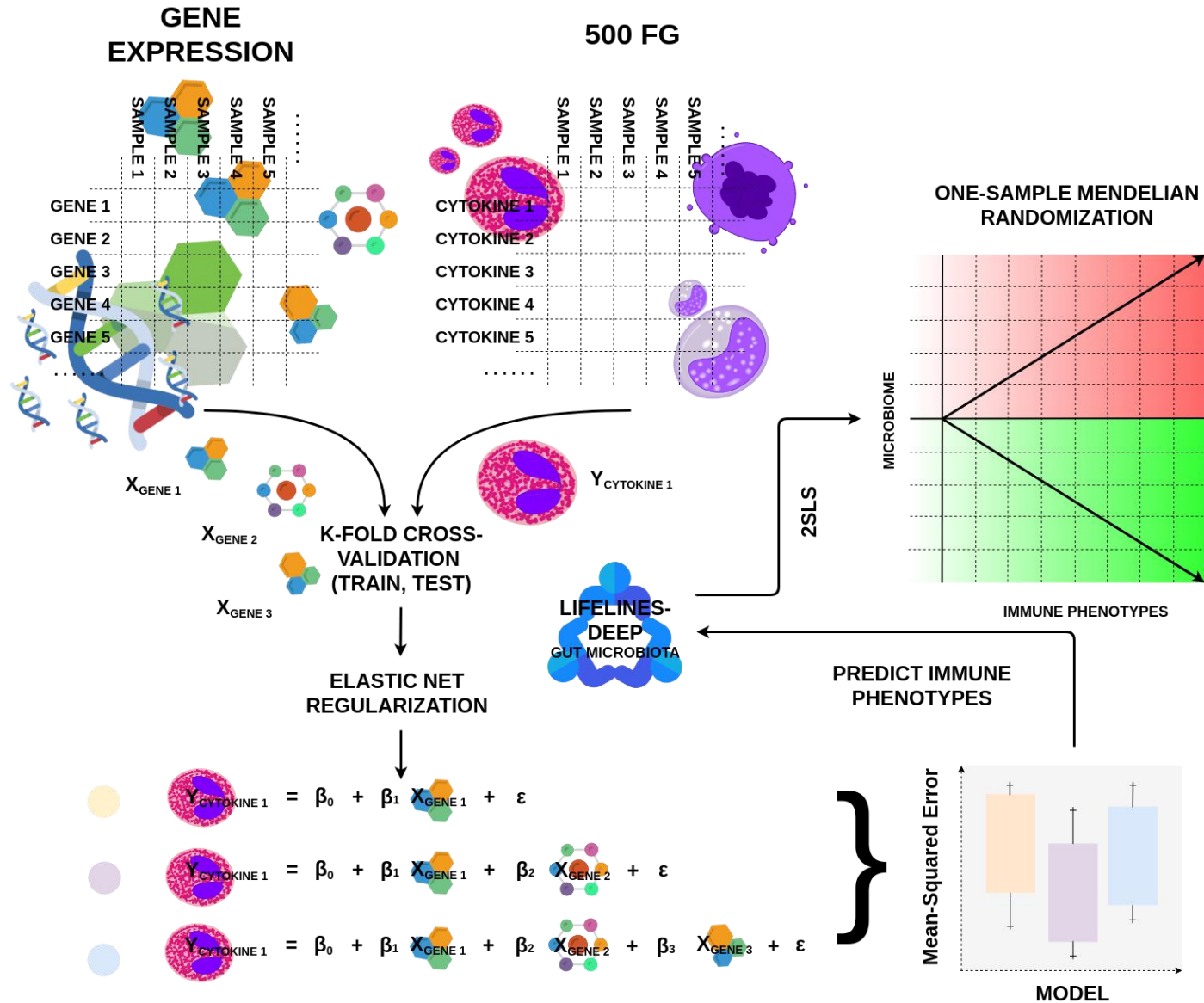
Hanze  
University of Applied Sciences  
Groningen

# PROJECT GOAL

“*The aim is to find causality links between microbiome composition / function and immune system with a statistical machine learning approach.*”



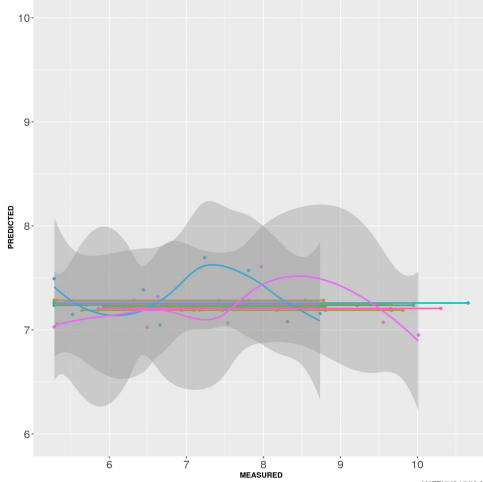
# WORKFLOW



# IFNy B.burgdorferi PBMC 7days

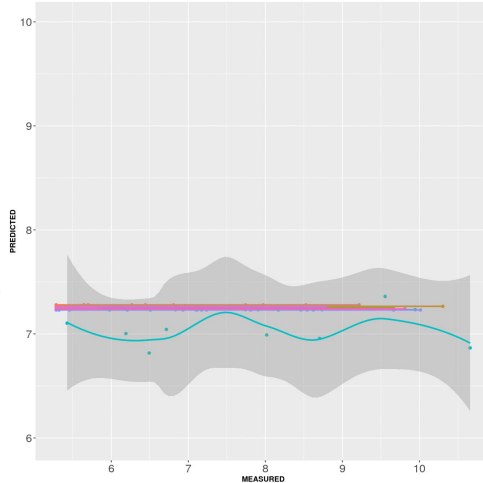
PREDICTED ~ MEASURED IFNy\_B.burgdorferi\_PBMC\_7days  
imputation.1

100-FOLD CROSS-VALIDATION



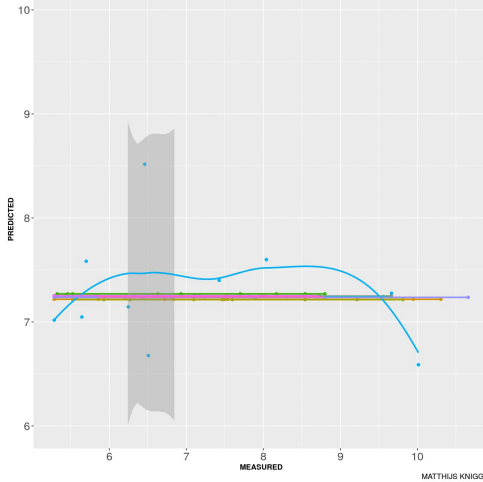
PREDICTED ~ MEASURED IFNy\_B.burgdorferi\_PBMC\_7days  
imputation.26

100-FOLD CROSS-VALIDATION



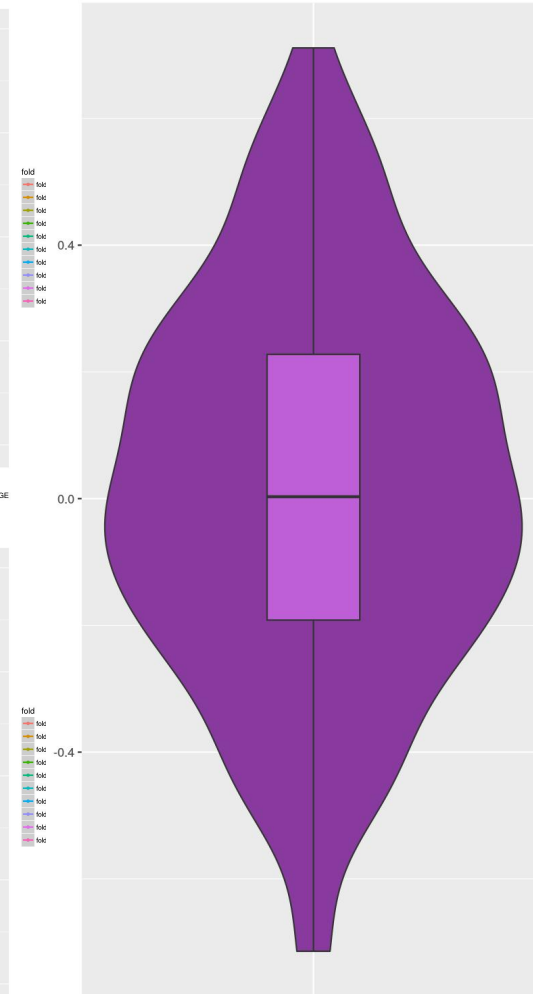
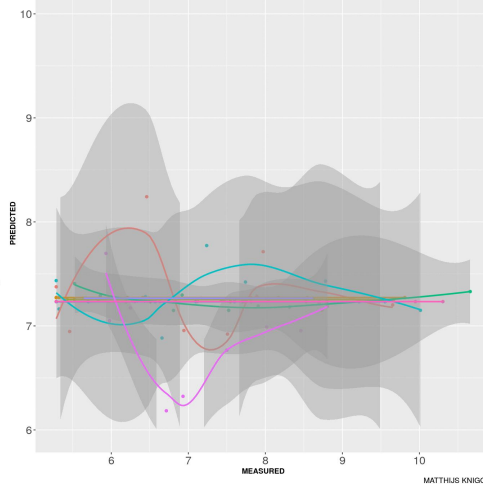
PREDICTED ~ MEASURED IFNy\_B.burgdorferi\_PBMC\_7days  
imputation.51

100-FOLD CROSS-VALIDATION



PREDICTED ~ MEASURED IFNy\_B.burgdorferi\_PBMC\_7days  
imputation.76

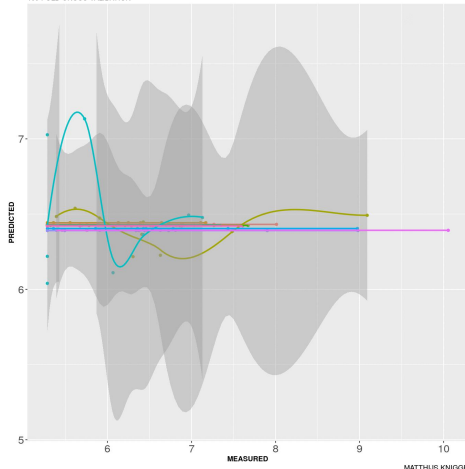
100-FOLD CROSS-VALIDATION



# IFNy Bacteroides PBMC 7 Days

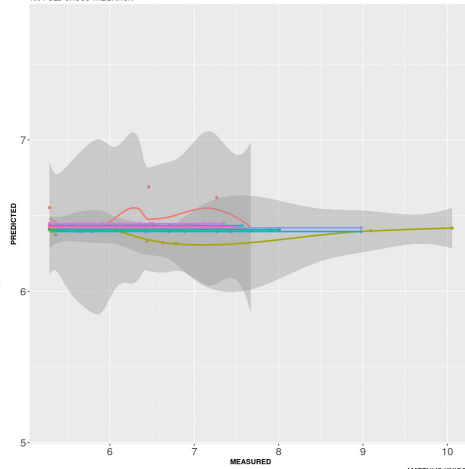
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imputation.1

100-FOLD CROSS-VALIDATION



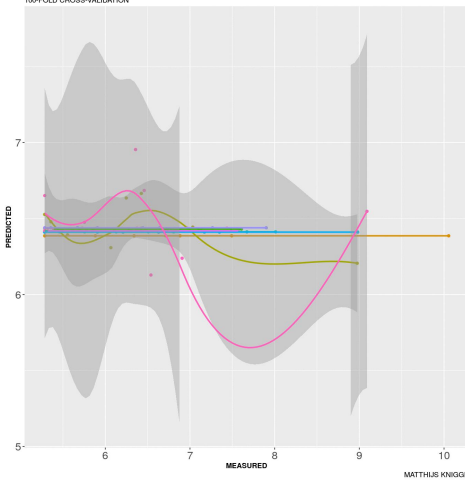
PREDICTED ~ MEASURED IFNy\_Bacteroides\_PBMC\_7days  
imputation.26

100-FOLD CROSS-VALIDATION



PREDICTED ~ MEASURED IFNy\_Bacteroides\_PBMC\_7days  
imputation.51

100-FOLD CROSS-VALIDATION



PREDICTED ~ MEASURED IFNy\_Bacteroides\_PBMC\_7days  
imputation.76

100-FOLD CROSS-VALIDATION

