

## Supplemental Table 1 & Figures 1-6

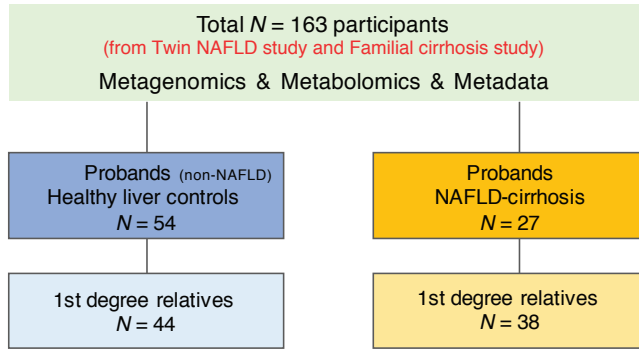
### Table S1 - related to Table 1

**Table S1: Baseline characteristics of (iii) first-degree relatives of non-NAFLD control group and (iv) first-degree relatives of NAFLD-cirrhosis group**

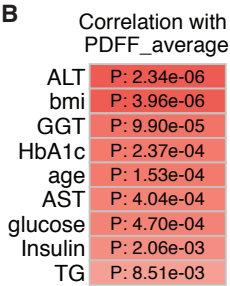
Characteristics	first-degree relatives of non-NAFLD control group (N = 44) (iii) (s.d.)	first-degree relatives of NAFLD-cirrhosis group (N = 38) (iv) (s.d.)	Wilcoxon p-value (iii↔iv)
<b>Demographics</b>			
Age (years)	43.91 (20.55)	46.82 (14.71)	n.s.
Female (n%)	32 (72.7%)	29 (76.3%)	
White (n%)	34 (77.3%)	11 (28.9%)	
Hispanic (n%)	7 (15.9%)	22 (57.9%)	
BMI (kg/m <sup>2</sup> )	25.28 (4.46)	35.96 (13.59)	<0.001
<b>Clinical</b>			
Type 2 Diabetes (n%)	2 (4.55%)	7 (18.4%)	
<b>Biological data</b>			
AST (U/L)	25.12 (9.05)	25.51 (10.64)	n.s.
ALT (U/L)	23.26 (16.43)	25.97 (10.54)	<0.05
Alk P (U/L)	72.05 (33.36)	74.32 (21.1)	n.s.
GGT (U/L)	25.21 (25.82)	33.81 (25.08)	<0.05
Total Bilirubin (mg/dL)	0.46 (0.21)	0.52 (0.2)	n.s.
Direct Bilirubin (mg/dL)	0.11 (0.03)	0.18 (0.04)	<0.001
Albumin (g/dL)	4.52 (0.37)	4.44 (0.22)	n.s.
Glucose (mg/dl)	88.05 (10.51)	95.05 (24.19)	n.s.
Hemoglobin A1c (%)	5.7 (0.48)	5.65 (0.75)	n.s.
Insulin (U/ml)	8.07 (4.89)	22.91 (21.12)	<0.001
Triglycerides (mg/dL)	81.12 (44.1)	140.47 (79.65)	<0.001
Total cholesterol (mg/dL)	178.45 (37.88)	183.21 (40.52)	n.s.
HDL-cholesterol (mg/dL)	66.02 (21.54)	49 (13.08)	<0.001
LDL-cholesterol (mg/dL)	96.29 (31.4)	103.61 (40.29)	n.s.
Platelet count (10 <sup>3</sup> /μL)	244.29 (52.11)	258.32 (70.09)	n.s.
Prothrombin time	11.25 (2.57)	11.65 (4.24)	n.s.
INR	1.1 (0.33)	1.1 (0.39)	n.s.
Ferritin (ng/mL)	86.05 (61.24)	128.29 (126.63)	n.s.
<b>Imaging data</b>			
MRI-PDFF (%)	2.22 (0.8)	7.96 (6.56)	<0.001
MRE (kPa)	2.19 (0.68)	2.63 (1.08)	<0.05

# Figure S1 - related to Figure 1

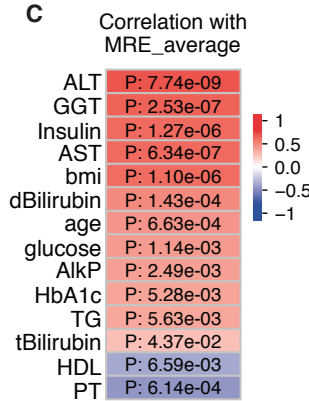
**A**



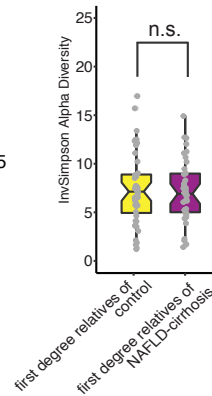
**B**



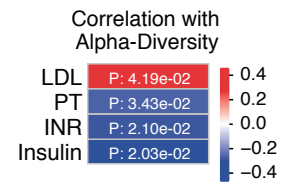
**C**



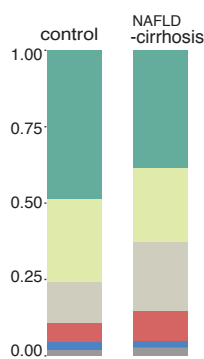
**D**



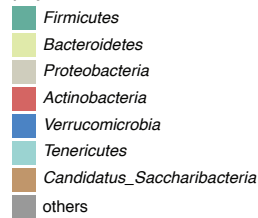
**E**



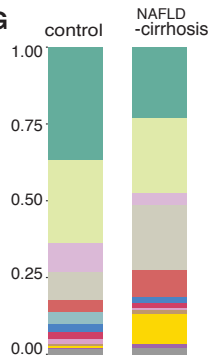
**F**



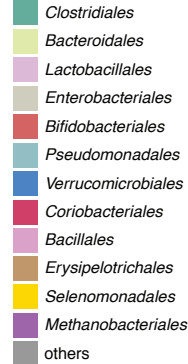
phylum-level



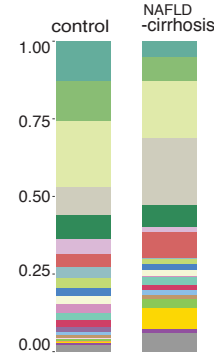
**G**



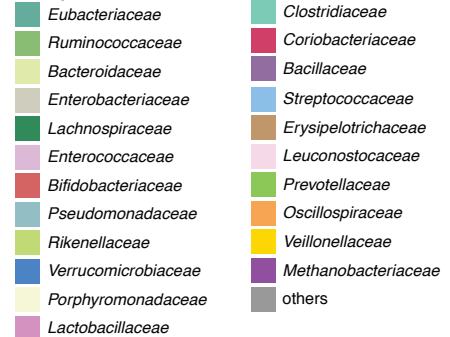
order-level



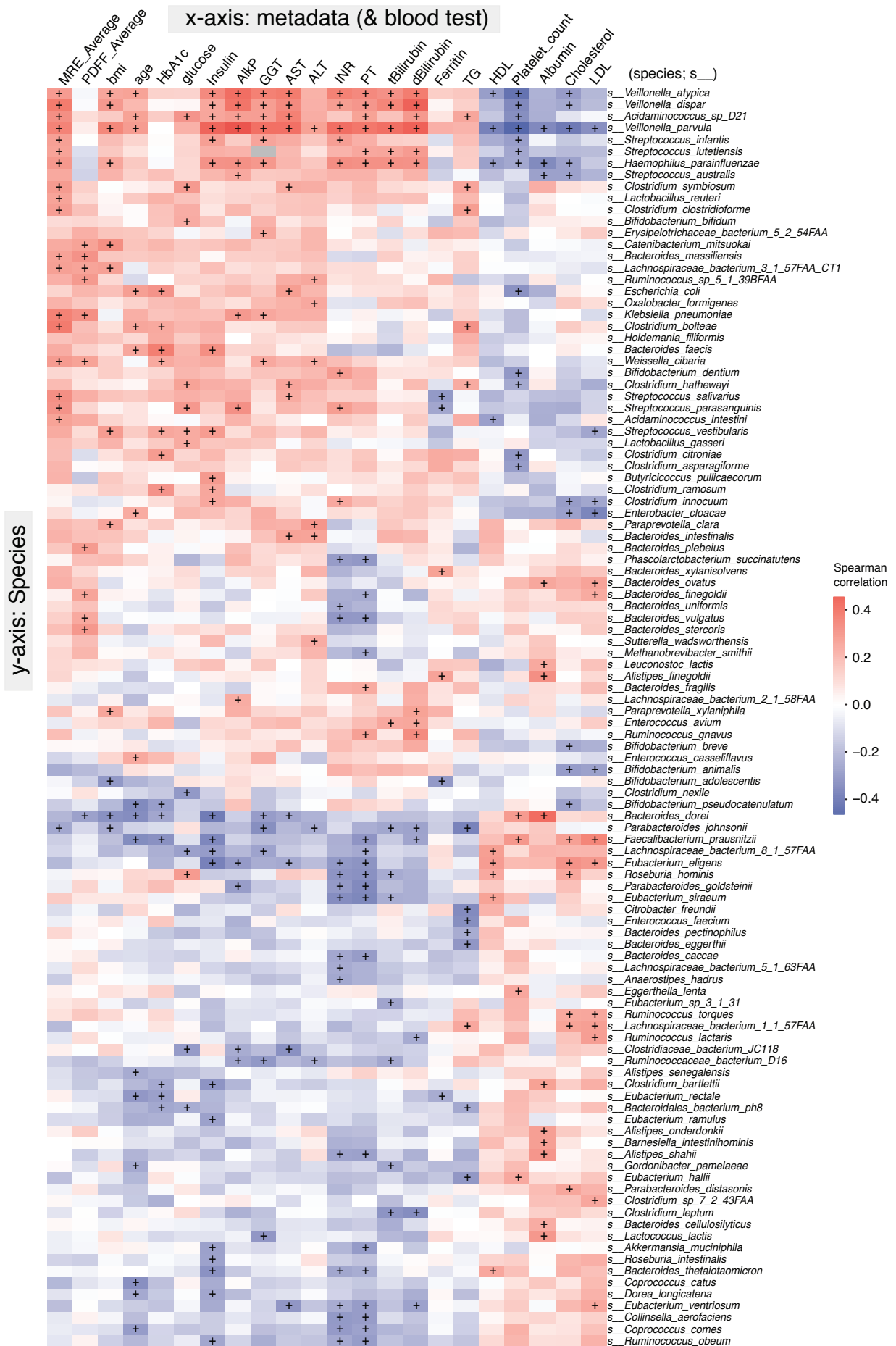
**H**



family-level

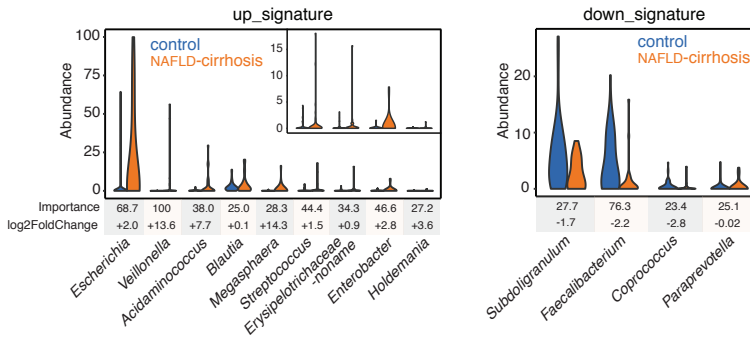


# Figure S2 - related to Figure 1

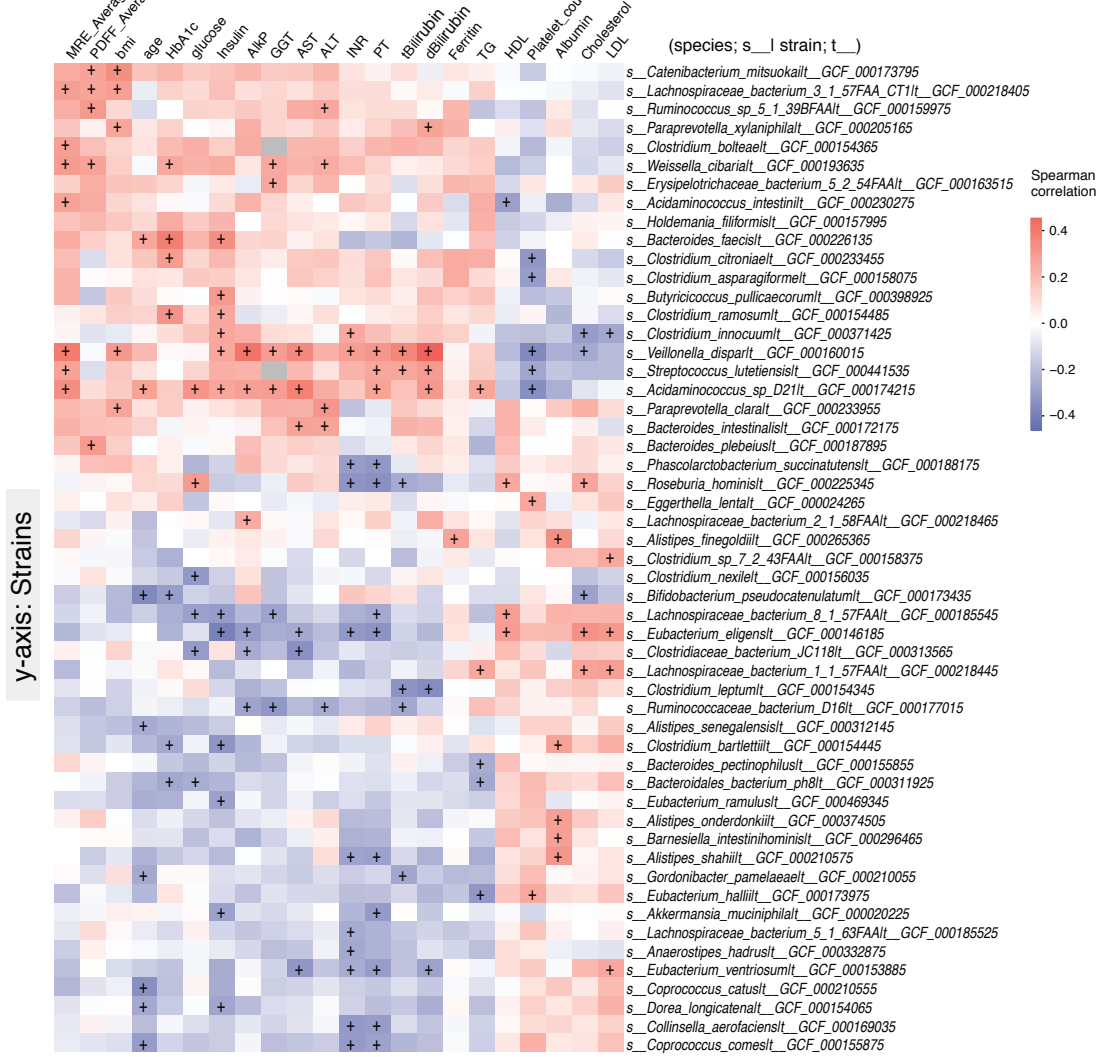


# Figure S3 - related to Figure 1

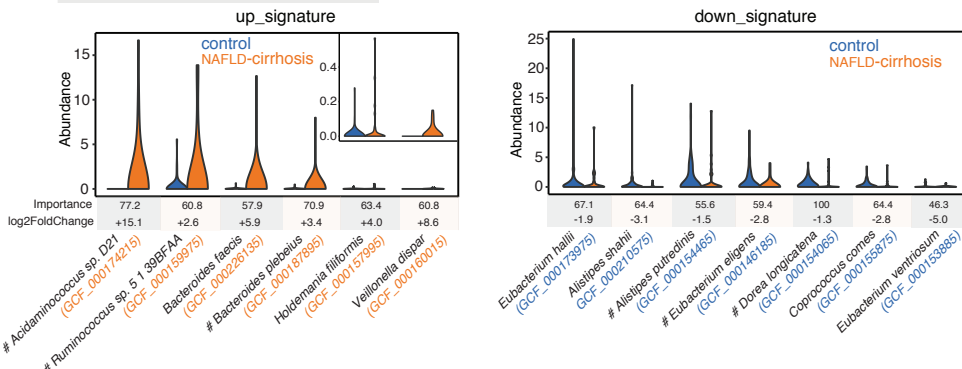
## A microbiome: discriminatory genera



## B x-axis: metadata (& blood test)



## C microbiome: discriminatory strains



# Figure S4 - related to Figure 2

A

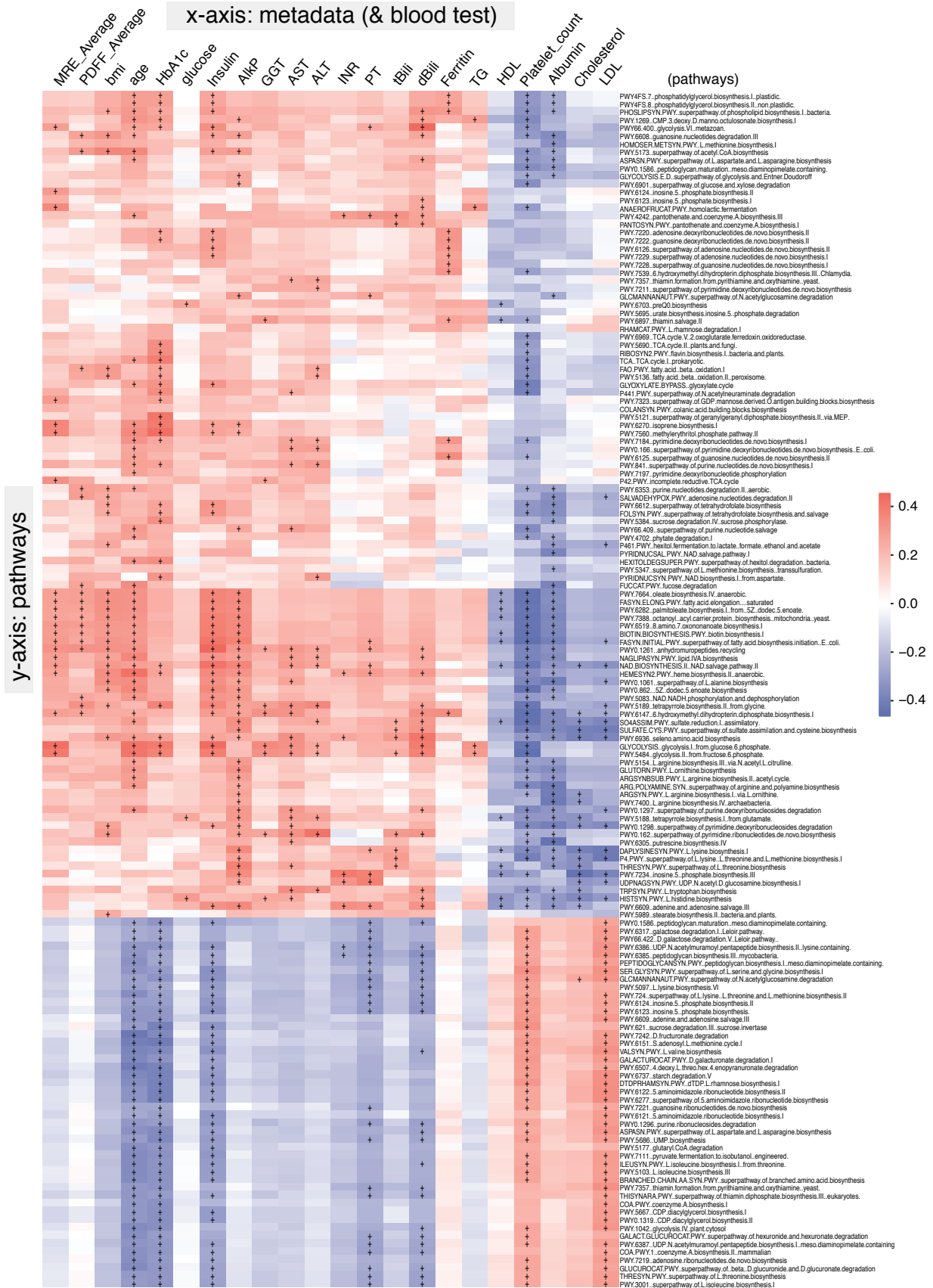


Figure S5 - related to Figure 3

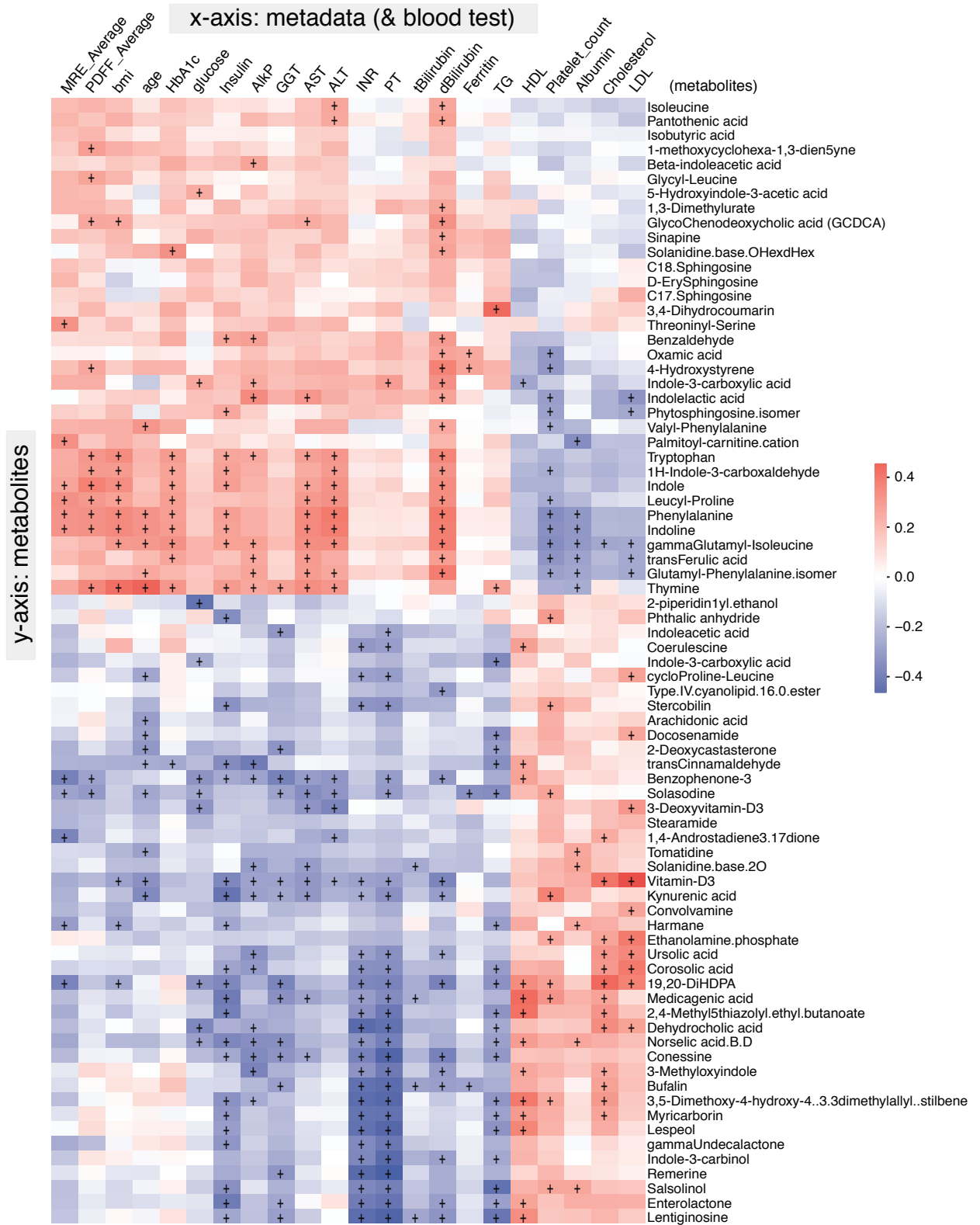


Figure S6 - related to Figure 4

**A** up\_signature (species) - related metabolites

**B** down\_signature (species) - related metabolites

● control    ◆ NAFLD-cirrhosis

