

Figure 1

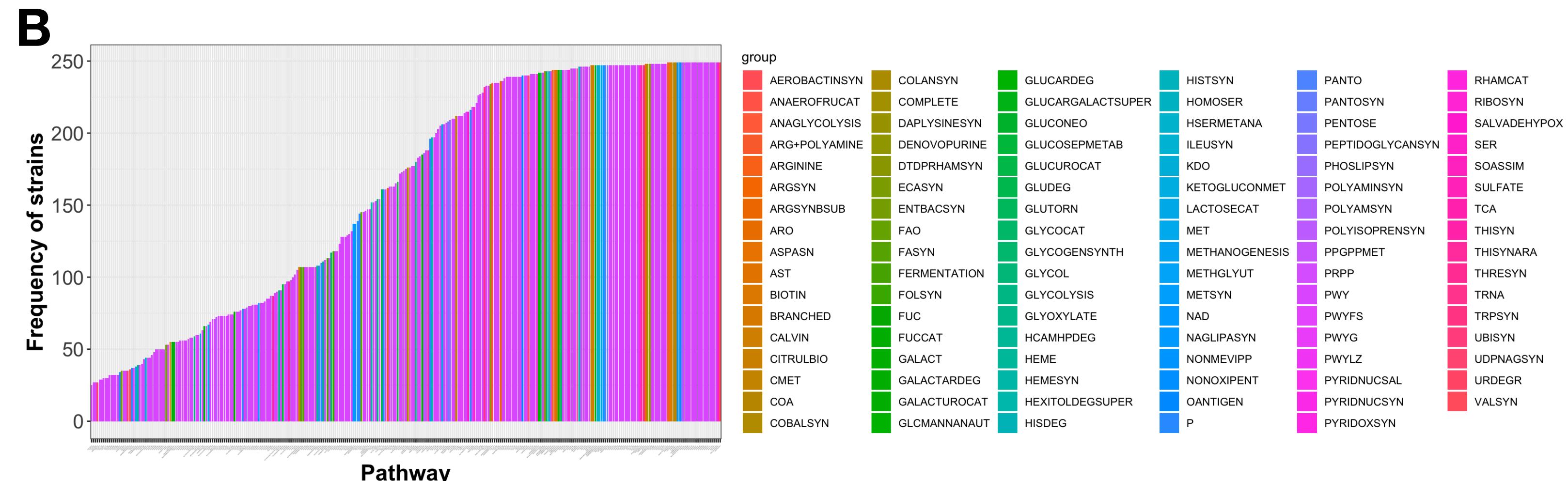
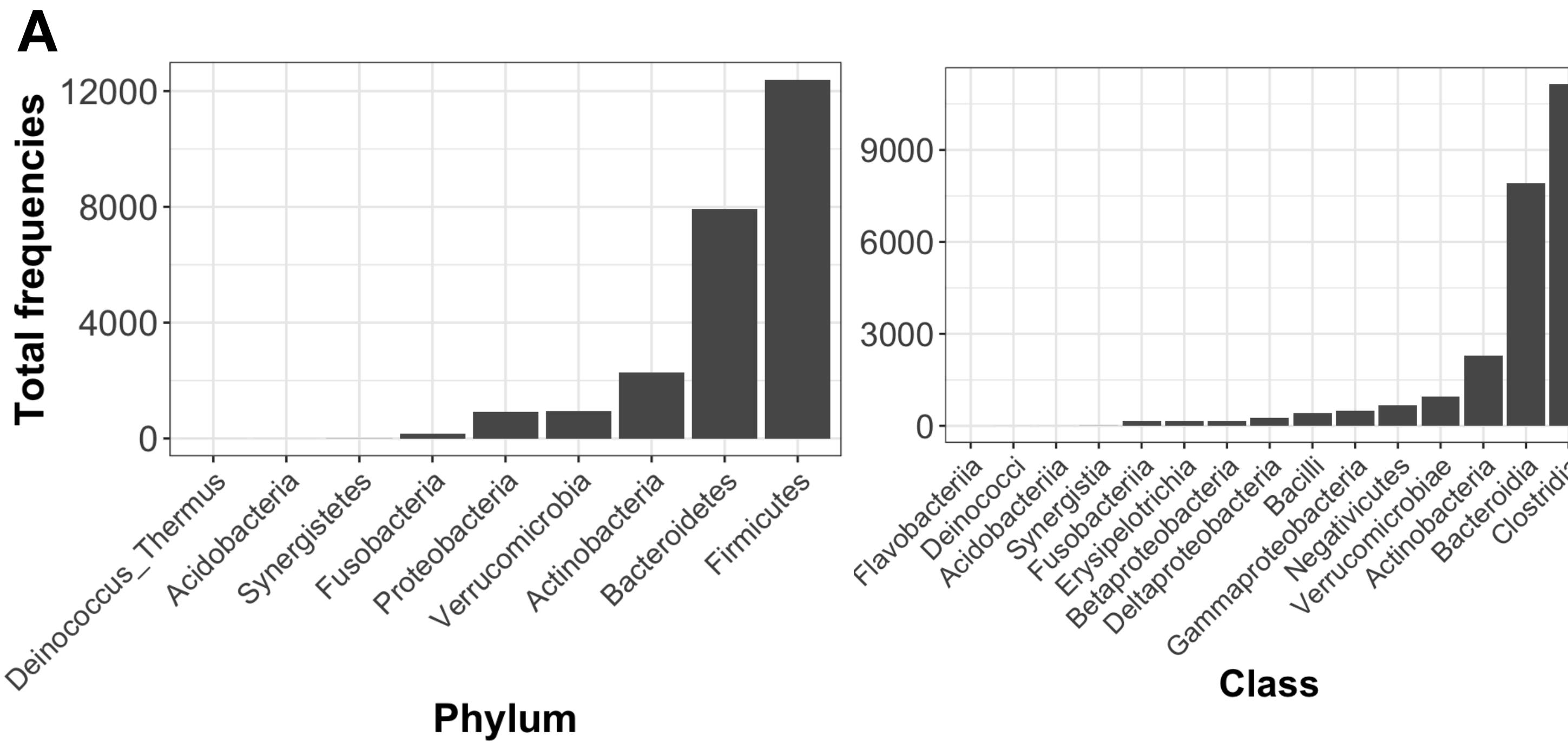


Figure 2

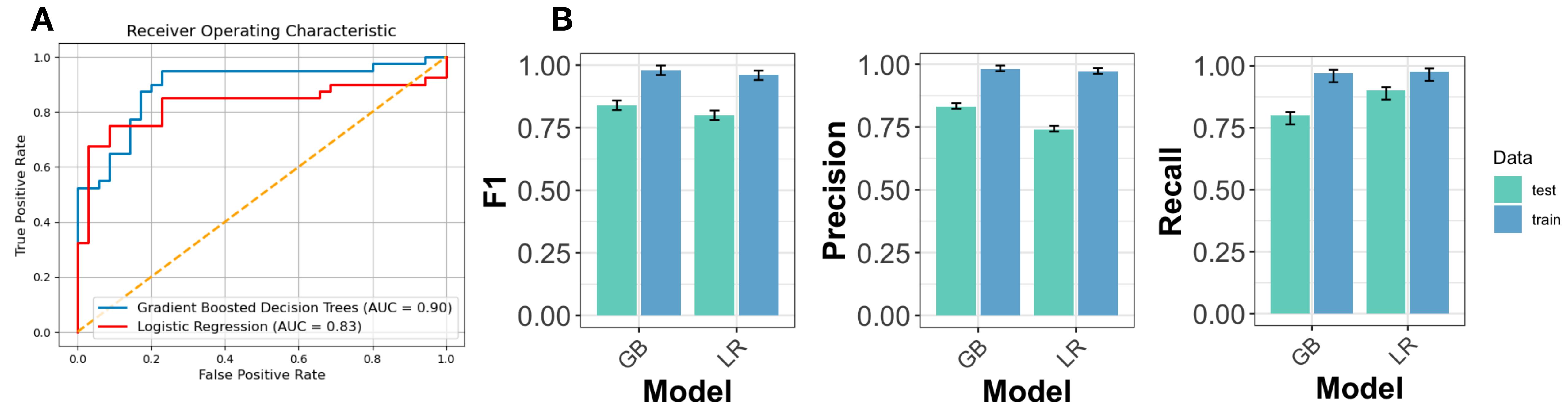


Figure 3

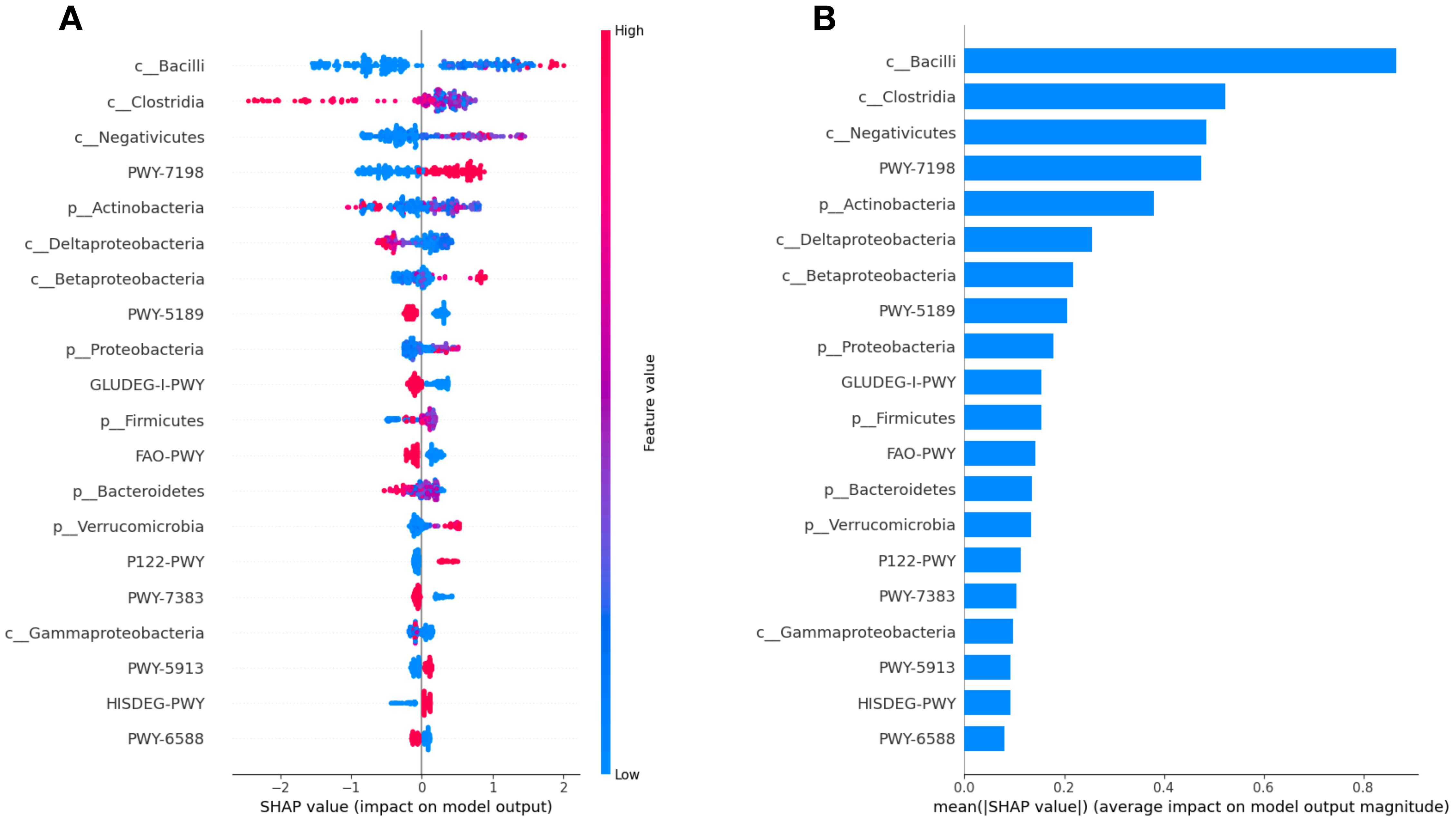
Gradient Boosted Decision Trees

	precision	recall	f1-score	support
Non-obese	0.85	0.80	0.82	35
Obese	0.83	0.88	0.85	40
accuracy			0.84	75
macro avg	0.84	0.84	0.84	75
weighted avg	0.84	0.84	0.84	75

Logistic Regression

	precision	recall	f1-score	support
Non-obese	0.74	0.91	0.82	35
Obese	0.91	0.72	0.81	40
accuracy			0.81	75
macro avg	0.83	0.82	0.81	75
weighted avg	0.83	0.81	0.81	75

Figure 4



A

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16.6KB

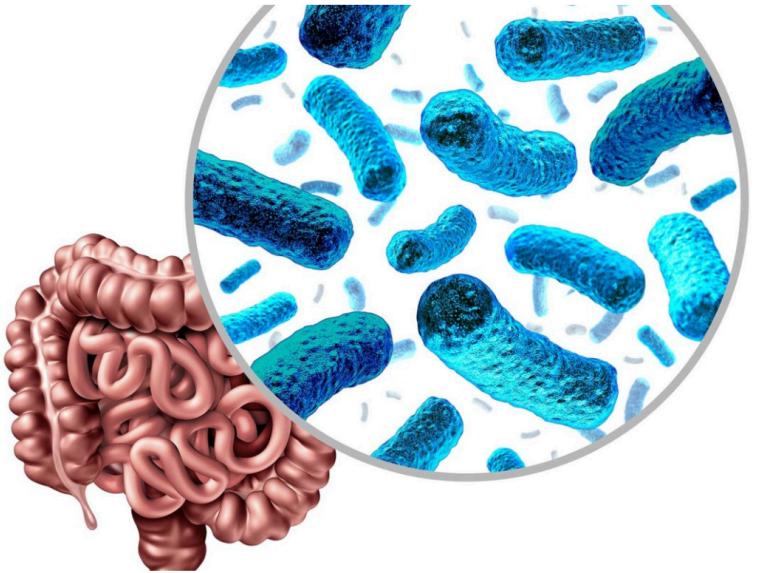
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Prediction

Show SHAP Importance Plot

Display Feature Importance Values

Machine learning prediction of Obesity from Gut Microbiota Taxa and Pathway Profiles



Front Page Photo

B

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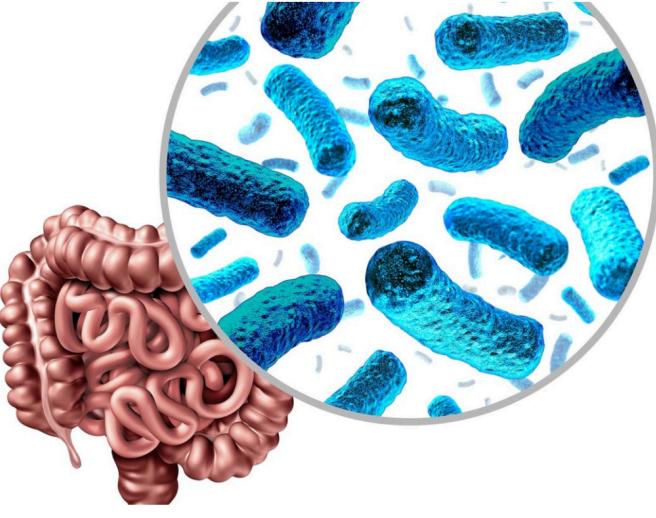
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Prediction

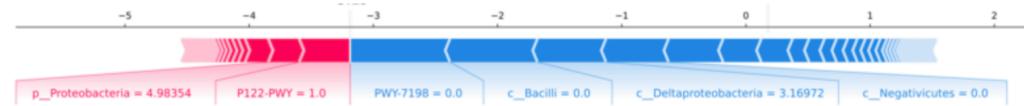
Show SHAP Importance Plot

Display Feature Importance Values

Machine learning prediction of Obesity from Gut Microbiota Taxa and Pathway Profiles



Front Page Photo



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Prediction

Show SHAP Importance Plot

Display Feature Importance Values

Predictors for Obesity:

	Unnamed: 0	SHAP
7	P122-PWY	0.4108
108	p_Proteobacteria	0.2487
109	c_Clostridia	0.1873
30	HEME-BIOSYNTHESIS-II	0.0548
14	PWY-821	0.0478
20	PWY-5913	0.047
58	HISDEG-PWY	0.0372
48	PWY-561	0.0329
11	PWY-5173	0.0292
8	POLYAMINSYN3-PWY	0.023

Predictors for Non-Obesity:

	Unnamed: 0	SHAP
10	PWY-7198	-0.8037
110	c_Bacilli	-0.7039
112	c_Deltaproteobacteria	-0.5522
113	c_Negativicutes	-0.5039
104	p_Firmicutes	-0.4395
105	p_Actinobacteria	-0.3067

Figure 5