

Supplementary Table S2 Optimal hyperparameter values for machine learning model achieved through GP and TPE.

ML Model	Hyperparameter	GP	TPE
SVM	C	2	42
	Gamma	0.96	0.28
	Kernel	RBF	RBF
RF	n_estimators	115	120
	min_samples_split	2	2
	max_depth	10	20
	max_features	14	4
	min_samples_leaf	1	1
LightGBM	n_estimators	521	895
	learning_rate	0.027	0.09
	max_depth	4	10
	min_child_samples	47	59
	min_data_in_leaf	56	58
	min_split_gain	0.47	0.1
	num_leaves	95	69