

Table S1: Alternative Classifiers

Features	AUC	MCC	TP	TN	FP	FN
all (APPIA)	0.77	0.35	1362	21523	4160	565
Methods, Length, Nseqs	0.77	0.27	903	21685	4619	403
Methods, Length	0.67	0.18	542	21714	4980	374
Methods	0.57	0.14	305	21903	5217	185
Length	0.67	0.13	306	21843	5216	245
nseqs	0.61	0.06	146	21891	5376	197
APPIA (with Flags)	0.79	0.34	1206	21671	4316	417
Algorithm	AUC	MCC	TP	TN	FP	FN
BayesNet	0.77	0.34	1674	21020	3848	1068
Naive Bayes	0.73	0.13	1419	19097	4103	2991
MLP	0.72	0.33	1050	21784	4472	304
Random Forests	0.69	0.24	1159	21006	4363	1082
KStar	0.67	0.22	1962	18979	3560	3109
ADTree	0.67	0.30	910	21793	4612	295
PART	0.66	0.22	481	21948	5041	140