

Supplementary Table 1

A. Hyper-parameter settings used to train deep learning models studied.

<i>Deep Learning model</i>	<i>Epochs</i>	<i>Batch Size</i>	<i>Optimizer</i>	<i>Lr</i>
<i>DenseNet169</i>	100	15	Adam	0.001
<i>ResNet50</i>	100	10	RMSProp	2e-5
<i>ResNet101</i>	100	15	Adam	0.01
<i>6 Layer CNN</i>	50	10	RMSProp	0.001
<i>Inception V3</i>	100	10	Adam	0.01
<i>MLP</i>	50	10	Adam	0.01
<i>Vgg16</i>	50	10	Adam	0.001

B. Hyper-parameter settings used to traditional machine learning models trained using features derived from ResNet101.

<i>Feature selection method</i>	<i>ML method</i>	<i>Parameters used</i>	<i>ROC_AUC</i>
<i>ResNet101 for Feature Vector (For the best results)</i>	RF	n_estimators=10, criterion='gini', max_depth=None, min_samples_split=2, min_samples_leaf=1, min_weight_fraction_leaf=0.0, max_features='auto', max_leaf_nodes=None, bootstrap=True, oob_score=False, n_jobs=1, random_state=None, verbose=0	AUC = 0.603
	AdaBoost	base_estimator=None, n_estimators=500, learning_rate=0.1	AUC = 0.681
	SVM	gamma='scale', class_weight='balanced', probability = True, kernel = ['linear', 'poly', 'rbf', 'sigmoid', 'poly']	AUC = 0.681
	KNN	n_neighbors = 5 metric = 'minkowski', p = 2	AUC = 0.611