### Supplementary Table 1. Performance of the 5 machine learning classifiers on the test set.

| Model  | PPV   | NPV   | MCC  | Model processing time (second) |
|--------|-------|-------|------|-------------------------------|
| LR     | 76.0% | 66.7% | 0.43 | 0.28                          |
| ANN    | 77.8% | 73.7% | 0.43 | 1.80                          |
| SVM    | 75.9% | 76.5% | 0.51 | 0.36                          |
| XGB    | 82.1% | 83.3% | 0.64 | 0.99                          |
| RF     | 82.8% | 88.2% | 0.69 | 0.96                          |

### Supplementary Table 2. Parameters for each machine learning method in this study.

| Model | Optimal parameters                                      |
|-------|---------------------------------------------------------|
| LR    | Penalty: ‘l2’, C: 0.1                                   |
| SVM   | C: 0.1, gamma: 0.01, kernel: ‘rbf’                      |
| RF    | n estimators: 80, max depth: 8, min samples split: 3, min samples leaf: 1 |
| XGB   | n estimators: 80, max depth: 3, learning rate: 0.1     |