**Supplementary Table S3.** The settings and results of experimental models.

**Lasso Logistic Regression Settings**

| Covariates | Settings |
| --- | --- |
| seed |  |
| variance | 0.04 |

**Random Forest Settings**

| Covariates | Settings |
| --- | --- |
| maxDepth | 4, 10, 17 |
| varImp | TRUE |

**Gradient Boosting Machine Settings**

| Covariates | Settings |
| --- | --- |
| maxDepth | 4, 6, 17 |
| minRows | 20 |
| seed |  |
| nthread | 20 |
| ntrees | 10, 100 |
| learnRate | 0.01, 0.1 |

**Performance**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Model** | **AUC** | **Sensitivity** | **Specificity** | **No. of Variables** |
| Lasso logistic Regression | 0.67 | 74.7% | 49.4% | 58 |
| Random forest | 0.69 | 76.2% | 49.4% | 2597 |
| Gradient boosting machine | 0.69 | 75.7% | 49.4% | 121 |