

**Supplementary Table 1.** Performance metrics of machine learning models including hepatitis B and C virus infection and cytomegalovirus immunity

Analysis	AUC	Accuracy	Precision	Recall/sensitivity	F1 score
XGBoost	0.710	0.84	0.66	0.30	0.43
CatBoost	0.710	0.84	0.70	0.18	0.30
Light GBM	0.708	0.85	0.50	0.15	0.26
Logistic regression	0.683	0.85	0.62	0.07	0.37

AUC, area under the curve; GBM, gradient boosting machine; XGBoost, eXtreme Gradient Boosting.