

**Supplementary Table 6.** Comparisons of C-index between each univariate Cox model versus multivariable Cox model with Lasso selected variables predict time to VL  $\geq 1000$

| Predictors in the model                                  | N  | C-index | SE  | 95%<br>Confidence<br>interval |      | P-value (single<br>predictor models vs.<br>Lasso selected<br>multivariable model) |
|----------------------------------------------------------|----|---------|-----|-------------------------------|------|-----------------------------------------------------------------------------------|
| Variables identified by Lasso<br>multivariable Cox model | 70 | 0.74    | 0   | 0.7                           | 0.8  | reference                                                                         |
| <b>Plasma A3G3S3 glycans</b>                             | 70 | 0.64    | 0   | 0.6                           | 0.71 | 0.017                                                                             |
| <b>Pyruvic acid</b>                                      | 70 | 0.56    | 0   | 0.5                           | 0.64 | <0.0001                                                                           |
| Plasma mannose (ConA binding)                            | 70 | 0.58    | 0   | 0.5                           | 0.66 | 0.001                                                                             |
| <b>Plasma T-antigen (MPA binding)</b>                    | 70 | 0.62    | 0   | 0.5                           | 0.7  | 0.007                                                                             |
| <b>Plasma T-antigen (ACA binding)</b>                    | 70 | 0.62    | 0   | 0.5                           | 0.69 | <0.0001                                                                           |
| $\alpha$ 2,3 sialic acid (ACG binding)                   | 70 | 0.49    | 0.1 | 0.4                           | 0.58 | <0.0001                                                                           |
| $\beta$ Gal (RCA120 binding)                             | 70 | 0.55    | 0.1 | 0.5                           | 0.64 | <0.0001                                                                           |
| <b>Total fucose (AAL binding)</b>                        | 70 | 0.62    | 0   | 0.5                           | 0.71 | 0.004                                                                             |
| GlcNAc $\beta$ 1-6Mannose (DSA binding)                  | 70 | 0.53    | 0   | 0.5                           | 0.61 | <0.0001                                                                           |
| <b>L-glutamic acid</b>                                   | 70 | 0.63    | 0   | 0.6                           | 0.7  | 0.001                                                                             |
| IgG G2 glycans                                           | 70 | 0.54    | 0.1 | 0.4                           | 0.63 | <0.0001                                                                           |
| (GlcNAc)n (UDA binding)                                  | 70 | 0.6     | 0   | 0.5                           | 0.68 | 0.004                                                                             |
| <b>(GlcNAc)n (STL binding)</b>                           | 70 | 0.63    | 0   | 0.6                           | 0.7  | 0.003                                                                             |

Bold variables are those selected by Lasso to be included in the multivariable Cox model predicting time to VL  $\geq 1000$ . C-index = The concordance index; SE = Standard error