## Supplemental Table 2. Plasma proteins predict COVID19 status on ICU day 1.

| Num | Assay  | Unipro<br>ID | Function  |
|-----|--------|--------------|---|
| 1.  | DDX58  | O95786       | Retinoic acid-inducible gene 1, also called DEAD box protein 58, is a transmembrane pattern recognition receptor that recognizes viral replicative intermediates in the cytosol during RNA virus infections (1). It is expressed in endothelial cells (2) and activates the type 1 interferon response (1). |
| 2.  | RRM2B  | Q7LG56       | Ribonucleoside-diphosphate reductase subunit M2 B also called p53R2, is a nuclear protein thought to be involved in DNA repair after damage (3).  |
| 3.  | IRF9   | Q00978       | Interferon regulatory factor 9 is a nuclear transcription factor that is part of a transcription complex that responds to type 1 interferon signaling (4).  |
| 4.  | NPM1   | P06748       | Nucleophosmin is a nucleolar protein found in proliferating cells, it has functions in mitotic spindle assembly, ribosome synthesis, DNA repair, embryogenesis and chromatin remodeling (5). It can bind HEXIM1 (6) (see entry 10 below).   |
| 5.  | MCP-3  | P80098       | Monocyte chemotactic protein 3, also called C-C motif chemokine 7 (CCL7), is the ligand for CCR1, CCR2, CCR3 and CCR5 (7, 8). It attracts monocytes, T cells, NKs immature DCs, basophils and eosinophils (7, 8).   |
| 6.  | Gal-9  | O00182       | Galectin-9 is a pattern recognition receptor that binds $\beta$ -galactosides (9). It is expressed on various immune cells, especially T cells, and expression is increased in response to various stimuli such as mitogen, TLR activation, pro-inflammatory cytokines and viral infection (9).             |
| 7.  | NADK   | O95544       | Nicotinamide adenine dinucleotide (NAD) kinase is a ubiquitously expressed cytosolic protein that phosphorylates NAD (10).  |
| 8.  | BRK1   | Q8WUW1       | Brick1 also called Hspc300, is a cytoskeleton-associated component of the Wave protein complex (11).  |
| 9.  | PFDN2  | Q9UHV9       | Prefoldin subunit 2 is a cytosolic protein, part of the hexameric prefoldin complex that captures unfolded proteins and transfers them to a chaperonin (12).  |
| 10. | HEXIM1 | O94992       | Hexamethylene bis-acetamide-inducible protein 1 is a nuclear transcriptional regulator (6). It can bind to nucleophosmin (see entry 4 above) and hypoxia-inducible factor α; may be recruited by NF-κB for transcription of inflammation-responsive genes (6).  |

| 11. | TCN2      | P20062     | Transcobalamin II is a serum protein that binds vitamin  |
|-----|-----------|------------|--|
|     |           |            | B12 for transport (13). It is synthesized in the intestinal  |
|     |           |            | mucosa, liver, seminal vesicles, fibroblasts, bone   |
|     |           |            | marrow, and macrophages (13).  |
| 12. | BLM       | Q13867     | Bleomycin hydrolase is a cytosolic cysteine  |
|     | hydrolase |            | aminopeptidase which breaks down homocysteine (14).  |
| 13. | KRT19     | P08727     | Keratin 19 also called cytokeratin 19 is a cytoskeletal  |
|     |           |            | protein expressed in laminated epithelium (15).  |
|     | FUS       | P35637     | Fused in sarcoma is a ubiquitously expressed nuclear   |
| 14. |           |            | RNA and DNA binding protein, though it also is found   |
|     | D COD 1   | 0011171    | in the cytoplasm (16).   |
| 15. | RCOR1     | Q9UKL0     | REST corepressor 1 is a nuclear protein that is part of  |
|     |           |            | protein complexes that modify chromatin to repress   |
|     | PSME1     | Q06323     | gene expression (17).  |
|     | PSMEI     | Q06323     | Proteasome activator complex subunit 1, also called  |
| 16. |           |            | PA28α, is a subunit of PA (proteasome activator) 28 that binds to and activates the 20S proteasome (18). It is |
| 10. |           |            | a cytosolic protein expressed in most tissues and  |
|     |           |            | induced by IFN $\gamma$ (18).  |
|     | CXCL11    | O14625     | A ligand for CXCR3 which is expressed on some T, B,  |
| 17. | CACEII    | 014023     | and NK cells (7). It promotes Th1 recruitment/   |
| 17. |           |            | chemotaxis (7, 19).  |
|     | CLSPN     | Q9HAW4     | Claspin is a nuclear protein that associates with DNA  |
| 18. | 02211     | Q ZZZZ V V | replication stalled due to DNA damage (20). It's   |
|     |           |            | expression is tightly regulated during the cell cycle with   |
|     |           |            | high levels in late S phase and G2 (20).   |
|     | S100A11   | P31949     | A cytosolic calcium-binding protein of the S100 family,  |
| 19. |           |            | it is involved in growth arrest in contact inhibition (21).  |
|     |           |            | It is expressed in a wide variety of cells and is secreted   |
|     |           |            | by an unconventional pathway (21). It is involved in   |
|     |           |            | cell-cell contacts and can promote cell migration in   |
|     |           |            | response to hypoxia-induced mitogenic factor (22).   |
| 20. | CDON      | Q4KMG0     | Cell adhesion molecule-related, down-regulated by  |
|     |           |            | oncogenes is a transmembrane glycoprotein that acts as   |
|     |           |            | a cell adhesion molecule and binds members of the  |
|     |           |            | hedgehog family (23). It seems to normally be involved   |
|     |           |            | in development and proliferating cells (23).   |

Supplemental Table 2. ICU Day 1 analytes that predict COVID19 status.

CXCR - C-X-C motif receptor

DC – dendritic cell

 $DEAD-Asp\hbox{-}Glu\hbox{-}Ala\hbox{-}Asp$ 

IFNγ – interferon gamma

NF-κB – nuclear factor kappa B

NK – natural killer cell

REST – repressor for element-1 silencing transcription

Th# – type # T-helper cell

TLR – toll-like receptor

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