SUPPLEMENTAL MATERIALS

Physiological signature

Functional groups:

- **Virus gateways (54 genes):** *HIF1A, ATP6V1C1, S100A9, HSPA5, ATP6V1D, PPIA, HAT1, SLC16A7, CD44, HDAC2, GADD45GIP, FLT, SLC2A1, CYB5B, PTGES3, FURIN, BSG, HMGB2, PSENEN, APH1B, TLR3, SLC3A2, METTL4, ATP6V1E1, IL13RA1, ADAM10, NCSTN, PSEN1, NOD2, SLC16A4, NFATC4, ACE2, KDM5B, VWF, NFATC3, CLDN5, GP6, SPN, GAS5, DICER1, SLC16A8, CD34, NFAT5, APH1A, HMGB1, PECAM1, TMPRSS2, KAT2B, NXNL1, APOD, ITGA6, TIE1* and *KDR.*

- **Intracellular traffic (66 genes):** *SLC16A3, RAB10, KPNA2, SLC16A1, SLC7A5, LMAN2, FKBP10, AP3B1, SIGMAR1, HEATR3, RAB18, FKBP15, GRPEL1, SLC16A7, FKBP1A, RAB2A, SRP72, NUP62, TMED5, POR, RAB1A, RAB7A, NUTF2, YIF1A, VTA1, GOLGA3, NUP155, NPC2, AP2M1, ERGIC1, FURIN, RAB8A, FKBP7, PCSK6, SLC30A7, SLC30A6, ARF6, RAB5C, SRP54, GOLGA2, KPNA3, NUP98, SLC3A2, AP2A2, REEP5, GCC1, GOLGA7, KPNA1, SLC16A4, SLC27A2, SLC30A9, NUP88, RTN4, RAB14, NUP214, SLC25A21, NUP54, SLC16A8, NUP153, REEP6, RALA, USP6NL, GORASP1, VPS39, GOLGB1* and *SLC44A2.*

- **Transcription/(post)translation physiology (79 genes):** *NME1, PPIB, ATP6V1C1, SIL1, ERP44, HYOU1, NOL10, FKBP10, CCDC86, HEATR3, HSPA5, ATP6V1D, FKBP15, IMPDH2, PPIA, HAT1, EXOSC3, MRPS5, SRP19, DDX21, EXOSC5, FKBP1A, GTF2F2, RRP9, NUP62, HDAC2, EIF4E2, MRPS27, TOR1A, RBM28, TRMT1, MDFI, DDX10, EXOSC2, UBXN8, RAE1, FKBP7, TLE3, H2AFB1, PRIM2, PPIL3, PABPC1, NGLY1, EDEM3, POLA2, LARP1, OS9, SDF2, UGGT2, POLA1, EXOSC8, INTS4, PRIM1, EIF4H, RPL36, NFATC4, HTATSF1, MDN1, UPF1, LARP1B, MOV10, KDM5B, ERLEC1, LARP7, NEAT1, CRTC3, TPR, PTBP2, ATE1, LARP4B, ELF3, RBM41, KAT2B, AKAP8L, SNIP1, ZC3H7A, TLE1, ZNF503* and *LUC7L3*.

- **Mitochondrial physiology (42 genes):** *BCKDK, HIF1A, ATP6V1C1, NDUFAF2, HYOU1, AP3B1, GPX1, ATP6V1D, ETFA, GRPEL1, ATP6V1A, TIMM8B, MRPS5, STOML2, TIMM10, TIMM9, NDUFAF1, MRPS27, COX8A, ATP6AP1, ALAS1, CYB5B, MRPS2, TOMM70A, ACAD9, ATP13A3, NDUFB9, TARS2, ACADM, BCS1L, GFER, ECSIT, FASTKD5, MRPS25, PITRM1, ATP1B1, PMPCA, PMPCB, CYB5R3, REEP6, AASS* and *USP54.*

Table S1. Correlation between **COVID-19-Signature** (transcription level) and the **MEL-Index** in human normal lungs.

GENES	r	p	FDR
CTSB	-0.41646	**2.21E-13**	**1.00E-10**
SLC16A3	-0.41623	**2.28E-13**	**1.03E-10**
BZW2	-0.39233	**6.35E-12**	**2.86E-09**
NME1	-0.39134	**7.24E-12**	**3.26E-09**
BCKDK	-0.38833	**1.08E-11**	**4.85E-09**

PPIB	-0.38591	**1.48E-11**	**6.61E-09**
RAB10	-0.3706	**1.04E-10**	**4.65E-08**
HIF1A	-0.36968	**1.17E-10**	**5.20E-08**
KPNA2	-0.36716	**1.60E-10**	**7.07E-08**
ATP6V1C1	-0.3667	**1.69E-10**	**7.47E-08**
SLC16A1	-0.36092	**3.40E-10**	**1.50E-07**
SLC7A5	-0.34244	**2.92E-09**	**1.28E-06**
SIL1	-0.34236	**2.94E-09**	**1.29E-06**
NDUFAF2	-0.34224	**2.99E-09**	**1.30E-06**
ERP44	-0.33827	**4.65E-09**	**2.03E-06**
HS2ST1	-0.32955	**1.21E-08**	**5.24E-06**
LMAN2	-0.3295	**1.21E-08**	**5.26E-06**
HYOU1	-0.32675	**1.63E-08**	**7.04E-06**
G3BP1	-0.31754	**4.26E-08**	**1.84E-05**
NOL10	-0.31579	**5.10E-08**	**2.19E-05**
MIF	-0.31036	**8.83E-08**	**3.78E-05**
S100A9	-0.3095	**9.63E-08**	**4.11E-05**
FKBP10	-0.30839	**1.08E-07**	**4.58E-05**
AP3B1	-0.29563	**3.72E-07**	**0.000157**
GPX1	-0.29515	**3.89E-07**	**0.000164**
CCDC86	-0.2939	**4.38E-07**	**0.000184**
SIGMAR1	-0.29197	**5.24E-07**	**0.00022**
HEATR3	-0.29089	**5.80E-07**	**0.000243**
HSPA5	-0.2905	**6.02E-07**	**0.000251**
ATP6V1D	-0.28927	**6.75E-07**	**0.000281**
RAB18	-0.28763	**7.85E-07**	**0.000326**
FKBP15	-0.28492	**1.01E-06**	**0.000416**
FTH1	-0.28253	**1.25E-06**	**0.000516**
ETFA	-0.28241	**1.26E-06**	**0.00052**
GRPEL1	-0.2814	**1.38E-06**	**0.000568**
ATP6V1A	-0.27621	**2.19E-06**	**0.000898**
IMPDH2	-0.27125	**3.38E-06**	**0.001381**
PPIA	-0.26951	**3.92E-06**	**0.001596**
CLIC1	-0.26878	**4.17E-06**	**0.001695**
HAT1	-0.2685	**4.28E-06**	**0.001732**
TYMP	-0.26795	**4.48E-06**	**0.001809**
GLA	-0.26697	**4.87E-06**	**0.001962**
PPT1	-0.26194	**7.43E-06**	**0.002971**
TIMM8B	-0.26139	**7.77E-06**	**0.003101**
EXOSC3	-0.26054	**8.34E-06**	**0.003319**
MRPS5	-0.25879	**9.63E-06**	**0.003822**
SRP19	-0.25855	**9.83E-06**	**0.003891**
PSMD8	-0.25829	**1.00E-05**	**0.003963**
SLC16A7	-0.25728	**1.09E-05**	**0.004294**

SCCPDH	-0.25301	**1.54E-05**	**0.006034**
DDX21	-0.25286	**1.56E-05**	**0.006091**
MMP9	-0.25247	**1.61E-05**	**0.006268**
HMOX1	-0.25192	**1.68E-05**	**0.00653**
HSBP1	-0.25058	**1.87E-05**	**0.007226**
CD44	-0.24897	**2.12E-05**	**0.008186**
EXOSC5	-0.24858	**2.19E-05**	**0.008421**
DCTPP1	-0.2476	**2.36E-05**	**0.009046**
STOML2	-0.24506	**2.88E-05**	**0.010998**
IL17RA	-0.24456	**2.99E-05**	**0.011397**
FKBP1A	-0.2429	**3.40E-05**	**0.012926**
S100P	-0.24128	**3.85E-05**	**0.014583**
GTF2F2	-0.23894	**4.60E-05**	**0.017377**
GDF15	-0.23819	**4.87E-05**	**0.018343**
RAB2A	-0.2378	**5.01E-05**	**0.018833**
SCARB1	-0.23618	**5.65E-05**	**0.021201**
TIMM10	-0.2314	**8.05E-05**	**0.029929**
SRP72	-0.23094	**8.33E-05**	**0.030886**
PDZD11	-0.2309	**8.35E-05**	**0.030886**
TIMM9	-0.22712	**0.00011**	**0.040055**
NQO1	-0.22673	**0.000113**	**0.040951**
PLAT	-0.22656	**0.000114**	**0.041333**
RRP9	-0.22483	**0.000129**	**0.046635**
ALG8	-0.22473	**0.00013**	**0.046828**
NUP62	-0.22447	**0.000133**	**0.047576**
HDAC2	-0.22152	**0.000163**	**0.058401**
TMED5	-0.21948	**0.000188**	**0.066929**
GGCX	-0.21671	**0.000228**	**0.080486**
EIF4E2	-0.21526	**0.000251**	**0.088446**
POR	-0.21119	**0.00033**	0.114646
RAB1A	-0.20806	**0.000406**	0.140635
RAP1GDS1	-0.20802	**0.000408**	0.140635
NDUFAF1	-0.20511	**0.000493**	0.169113
IL6	-0.20494	**0.000498**	0.170472
MRPS27	-0.20319	**0.000558**	0.190262
GNG5	-0.2014	**0.000626**	0.212107
COX8A	-0.20123	**0.000633**	0.21387
ACSL3	-0.20026	**0.000673**	0.226672
CHPF2	-0.19972	**0.000696**	0.233869
FAM162A	-0.19849	**0.000752**	0.25196
RAB7A	-0.1979	**0.000781**	0.260805
TOR1A	-0.19566	**0.000898**	0.29722
RBM28	-0.19454	**0.000962**	0.317574
ATP6AP1	-0.19221	**0.00111**	0.364119

NUTF2	-0.19096	**0.001197**	0.391492
YIF1A	-0.18953	**0.001305**	0.424226
VTA1	-0.18931	**0.001323**	0.428541
TRMT1	-0.18887	**0.001358**	0.438615
GADD45GIP1	-0.18725	**0.001496**	0.480351
FLT1	-0.18051	**0.00222**	0.70599
GHITM	-0.18046	**0.002226**	0.70599
CISD3	-0.18037	**0.002238**	0.707092
SLC2A1	-0.17981	**0.002311**	0.72332
ALAS1	-0.17801	**0.00256**	0.798732
NEU1	-0.17547	**0.002956**	0.916369
GOLGA3	-0.17534	**0.002977**	0.919936
MDFI	-0.17505	**0.003025**	0.93172
DDX10	-0.17435	**0.003146**	0.962752
EXOSC2	-0.17051	**0.003889**	1
ACTG1	-0.16821	**0.004406**	1
CYB5B	-0.16801	**0.004453**	1
NEDD8	-0.16501	**0.00523**	1
PTGES2	-0.16469	**0.005317**	1
GGH	-0.16429	**0.005431**	1
CENPF	-0.1632	**0.005752**	1
NUP155	-0.16221	**0.006059**	1
PVR	-0.16088	**0.006495**	1
NPC2	-0.16036	**0.006669**	1
QSOX2	-0.15961	**0.006934**	1
AP2M1	-0.15948	**0.006982**	1
ERGIC1	-0.15792	**0.007562**	1
IDE	-0.15719	**0.007847**	1
AGPS	-0.15699	**0.007926**	1
CHPF	-0.15594	**0.008361**	1
PTGES3	-0.15557	**0.008518**	1
MRPS2	-0.15458	**0.008951**	1
PRKACA	-0.15383	**0.009293**	1
FURIN	-0.15273	**0.009817**	1
RAB8A	-0.15257	**0.009896**	1
CUL2	-0.15141	**0.010476**	1
ZDHHC5	-0.15088	**0.010757**	1
POFUT1	-0.15055	**0.010931**	1
UBXN8	-0.15024	**0.011096**	1
CWC27	-0.14943	**0.011547**	1
RAE1	-0.1492	**0.011673**	1
BSG	-0.1473	**0.012798**	1
CD59	-0.14711	**0.012915**	1
HMGB2	-0.14317	**0.015571**	1

FKBP7	-0.14247	**0.016091**	1
TLE3	-0.14129	**0.016999**	1
TOMM70A	-0.13958	**0.018398**	1
ALG5	-0.13892	**0.018956**	1
PCSK6	-0.13792	**0.019843**	1
PPARG	-0.13779	**0.019959**	1
STC2	-0.13676	**0.020918**	1
SLC30A7	-0.13554	**0.022093**	1
LOXL1	-0.13384	**0.023836**	1
SLC30A6	-0.13375	**0.02393**	1
HS6ST2	-0.13351	**0.024192**	1
ADAMTS1	-0.13279	**0.024975**	1
ARF6	-0.13269	**0.025085**	1
CSTA	-0.13196	**0.025899**	1
RAB5C	-0.13036	**0.027776**	1
SRP54	-0.12785	**0.030947**	1
GRN	-0.1278	**0.031013**	1
ADAM9	-0.12511	**0.03476**	1
TMSB10	-0.12399	**0.036428**	1
FBN1	-0.12333	**0.037452**	1
H2AFB1	-0.1223	**0.039086**	1
ITGB1	-0.12165	**0.040144**	1
F2RL1	-0.12088	**0.041426**	1
DPY19L1	-0.11687	**0.048719**	1
PRIM2	-0.11627	**0.049885**	1
AGT	-0.11622	**0.049983**	1
RNF41	-0.11572	0.050993	1
CDK5RAP2	-0.11369	0.055236	1
TBK1	-0.10721	0.070748	1
TMEM97	-0.1068	0.071836	1
PPIL3	-0.10505	0.07664	1
ALG11	-0.10423	0.078967	1
PSENEN	-0.10249	0.084127	1
GOLGA2	-0.10116	0.088246	1
KPNA3	-0.09775	0.099578	1
PABPC1	-0.09752	0.100378	1
KPNA4	-0.09701	0.102184	1
NGLY1	-0.0949	0.1099	1
SPCS1	-0.09394	0.11354	1
NUP98	-0.09274	0.118275	1
APH1B	-0.09257	0.118951	1
IFI6	-0.09244	0.11945	1
DNMT1	-0.09207	0.120938	1
THTPA	-0.09206	0.120997	1

EDEM3	-0.08927	0.132727	1
LGALS3	-0.08924	0.132874	1
ITGAV	-0.08866	0.135394	1
ABCC1	-0.08648	0.145306	1
PKP2	-0.08644	0.145495	1
RHOA	-0.08455	0.154551	1
TLR3	-0.08417	0.156421	1
CAB39	-0.08389	0.157811	1
NPC1	-0.08379	0.158312	1
ACAD9	-0.08365	0.159011	1
POLA2	-0.08302	0.162158	1
LARP1	-0.08246	0.165039	1
GPX2	-0.08208	0.166986	1
IL6ST	-0.08201	0.167346	1
STOM	-0.0818	0.168465	1
OS9	-0.08128	0.171197	1
SLC3A2	-0.08073	0.174087	1
ATP13A3	-0.07984	0.178914	1
CD4	-0.07942	0.181244	1
DPH5	-0.07806	0.188819	1
AP2A2	-0.07772	0.190804	1
METTL4	-0.07745	0.192329	1
DNAJC11	-0.07722	0.193674	1
INS	-0.07719	0.19384	1
SDF2	-0.07697	0.195094	1
ATP6V1E1	-0.07682	0.196011	1
IL13RA1	-0.0765	0.197869	1
ADAM10	-0.07375	0.214514	1
NARS2	-0.07083	0.233262	1
TBCA	-0.07082	0.23333	1
UGGT2	-0.07041	0.236062	1
GPAA1	-0.06802	0.252404	1
CHMP2B	-0.06575	0.268567	1
NEK9	-0.06239	0.293899	1
PRKAR2A	-0.06215	0.295726	1
TMEM39B	-0.06012	0.311808	1
C1orf50	-0.05985	0.314006	1
FOXRED2	-0.05854	0.324734	1
REEP5	-0.05823	0.327276	1
PUSL1	-0.05812	0.328253	1
POLA1	-0.05523	0.352908	1
NCSTN	-0.05438	0.360359	1
COL6A1	-0.05333	0.369722	1
EXOSC8	-0.05243	0.377831	1

CHMP2A	-0.0506	0.394774	1
GCC1	-0.04804	0.419122	1
PSEN1	-0.04765	0.422969	1
NDUFB9	-0.04688	0.430501	1
SAAL1	-0.04634	0.43581	1
NOC4L	-0.04145	0.485797	1
SERPINB3	-0.04099	0.490648	1
INTS4	-0.04094	0.491185	1
XIAP	-0.04006	0.500567	1
CEACAM5	-0.03957	0.505822	1
FBN2	-0.03535	0.552324	1
DCAF7	-0.03489	0.557525	1
BRD4	-0.03454	0.561443	1
GOLGA7	-0.03408	0.566647	1
KPNA1	-0.03405	0.567042	1
MYCBP2	-0.03363	0.571828	1
PRIM1	-0.03326	0.57604	1
PIGS	-0.0329	0.58023	1
EIF4H	-0.03221	0.588122	1
GIGYF2	-0.03178	0.593087	1
PLAC8	-0.03147	0.596703	1
CEP135	-0.03049	0.608233	1
NOD2	-0.02996	0.614441	1
PTH	-0.0298	0.616397	1
EDN1	-0.02963	0.618387	1
NIN	-0.02903	0.625567	1
SLC16A4	-0.0285	0.631806	1
ENG	-0.02766	0.641951	1
SBNO1	-0.02749	0.643948	1
CEP250	-0.02685	0.651729	1
TARS2	-0.02639	0.657285	1
SLC27A2	-0.0259	0.663248	1
ACADM	-0.02434	0.68237	1
G3BP2	-0.02369	0.690419	1
BCS1L	-0.02126	0.720812	1
MOGS	-0.02106	0.723361	1
SLC30A9	-0.0198	0.739301	1
CLCC1	-0.01793	0.763086	1
GFER	-0.01688	0.776637	1
RPL36	-0.01492	0.801927	1
ZC3H18	-0.01394	0.814761	1
NUP88	-0.01374	0.817394	1
MARK2	-0.01286	0.828894	1
CEP350	-0.01281	0.829516	1

NFATC4	-0.01253	0.833197	1
MPHOSPH10	-0.01242	0.834639	1
RANBP2	-0.01229	0.836285	1
NDFIP2	-0.01145	0.847422	1
FAR2	-0.01094	0.854167	1
ITCH	-0.00738	0.901243	1
MDK	-0.00712	0.904697	1
MIPOL1	-0.00675	0.909622	1
GNB1	-0.0062	0.917067	1
VEGFA	-0.00522	0.930056	1
PIGR	-0.00512	0.931375	1
HTATSF1	-0.0044	0.941011	1
PLD3	-0.00289	0.961224	1
PIGO	-0.00263	0.964727	1
ACE2	-0.00047	0.993694	1
NAT14	0.001688	0.977361	1
SCAP	0.006195	0.917071	1
MDN1	0.006656	0.910929	1
RBX1	0.006993	0.90644	1
PTMA	0.007454	0.900302	1
ECSIT	0.009142	0.877875	1
REN	0.009598	0.871832	1
PDE4DIP	0.010412	0.861074	1
ERMP1	0.011901	0.841454	1
RTN4	0.012488	0.833738	1
UPF1	0.01347	0.820886	1
COMT	0.014049	0.813325	1
JAKMIP1	0.018738	0.752788	1
FASTKD5	0.018962	0.749921	1
LARP1B	0.019677	0.740822	1
NUP107	0.023049	0.698417	1
MOV10	0.024453	0.681024	1
RAB14	0.024632	0.67882	1
ALDH3A1	0.024939	0.675044	1
MRPS25	0.02503	0.673931	1
DEK	0.025755	0.665042	1
KDM5B	0.026864	0.651556	1
TUBGCP2	0.029499	0.619954	1
PITRM1	0.032215	0.588092	1
ERLEC1	0.032668	0.582855	1
ATP1B1	0.033637	0.571713	1
PMPCA	0.033787	0.57	1
TGFB1	0.033874	0.569015	1
INHBE	0.03406	0.566887	1

TYSND1	0.036051	0.544431	1
VWF	0.03675	0.536647	1
CLIP4	0.038602	0.516308	1
TBKBP1	0.038692	0.515321	1
TUBGCP3	0.044351	0.455782	1
SLC9A3R1	0.044875	0.450471	1
IFNA1	0.045285	0.446341	1
TRIM59	0.047732	0.422137	1
CST3	0.048059	0.418959	1
NFATC3	0.051641	0.385092	1
ACE	0.05191	0.382622	1
CLDN5	0.053284	0.370137	1
HOOK1	0.054296	0.361104	1
GP6	0.055704	0.348768	1
DSTN	0.057028	0.337415	1
MAP7D1	0.057888	0.330168	1
GRIPAP1	0.058609	0.324163	1
SPN	0.058734	0.323136	1
CSDE1	0.060852	0.305962	1
NUP214	0.060935	0.305303	1
GAS5	0.062115	0.296009	1
ERC1	0.063089	0.28849	1
LOX	0.065333	0.271645	1
CSNK2B	0.06536	0.271453	1
SLC25A21	0.065896	0.267531	1
SLU7	0.06639	0.263954	1
BAG5	0.071299	0.230175	1
FYCO1	0.073518	0.215955	1
TCF12	0.075737	0.202379	1
SEPP1	0.075771	0.202178	1
MTCH1	0.079197	0.182463	1
CAPSL	0.07972	0.179579	1
NLRX1	0.080649	0.174546	1
DNAJC19	0.081462	0.170227	1
PLD2	0.081671	0.169129	1
LARP7	0.081758	0.168677	1
NPPB	0.082767	0.163465	1
NPTX1	0.082918	0.162691	1
TNF	0.08297	0.162431	1
ARL6IP6	0.084402	0.155273	1
DICER1	0.085168	0.151548	1
NUP54	0.085582	0.149561	1
RIPK1	0.085986	0.147642	1
VPS11	0.086537	0.145055	1

ZYG11B	0.086869	0.143512	1
PMPCB	0.087163	0.142154	1
MAT2B	0.087379	0.141169	1
MARK1	0.088975	0.134017	1
MFGE8	0.090043	0.129393	1
CYB5R3	0.094713	0.1106	1
NFU1	0.097425	0.100715	1
DCAKD	0.097925	0.098969	1
TOR1AIP1	0.098518	0.096933	1
CD151	0.100276	0.091091	1
NFATC1	0.100342	0.090875	1
SMOC1	0.101575	0.086958	1
TM2D3	0.101688	0.086604	1
SPAG16	0.106567	0.072453	1
OPTN	0.109596	0.064655	1
ANO6	0.109802	0.064151	1
SLC16A8	0.111075	0.061108	1
SLC44A4	0.112753	0.057276	1
SIRT5	0.113147	0.056407	1
IL6R	0.11328	0.056116	1
TSPAN1	0.118645	**0.045367**	1
UBAP2L	0.12209	**0.03942**	1
USP13	0.124304	**0.035958**	1
CD34	0.124431	**0.035766**	1
NEAT1	0.12491	**0.035056**	1
AKAP8	0.126961	**0.032144**	1
PLA2G10	0.127034	**0.032045**	1
NUP153	0.127327	**0.031647**	1
REEP6	0.127807	**0.031006**	1
CRTC3	0.128714	**0.029823**	1
RALA	0.129018	**0.029435**	1
NFAT5	0.130683	**0.027387**	1
APH1A	0.133563	**0.024133**	1
TPR	0.133836	**0.023842**	1
PTBP2	0.135224	**0.022412**	1
CSNK2A2	0.135711	**0.021928**	1
CA2	0.137972	**0.019798**	1
IST1	0.141523	**0.016815**	1
HMGB1	0.143877	**0.015061**	1
UBAP2	0.149209	**0.011669**	1
ATE1	0.150831	**0.01078**	1
ZNF318	0.15321	**0.009586**	1
TFF3	0.153293	**0.009546**	1
USP6NL	0.15341	**0.009491**	1

CLDN3	0.153847	**0.009286**	1
CEP68	0.155269	**0.008648**	1
PECAM1	0.157227	**0.007833**	1
LARP4B	0.159278	**0.007053**	1
LAMB3	0.160905	**0.006485**	1
MEPCE	0.163798	**0.005574**	1
ELF3	0.167432	**0.004594**	1
TMPRSS2	0.169056	**0.004209**	1
SORBS2	0.170178	**0.00396**	1
CIT	0.170364	**0.00392**	1
RBM41	0.17266	**0.003455**	1
KAT2B	0.17482	**0.003065**	0.94089
NINL	0.177143	**0.00269**	0.836507
AKAP8L	0.179877	**0.002302**	0.722827
NXNL1	0.180226	**0.002256**	0.710725
MIB1	0.181745	**0.002067**	0.659394
GCC2	0.184617	**0.001748**	0.559481
APOD	0.188553	**0.001384**	0.445777
ITGA6	0.189816	**0.001283**	0.418331
CLDN4	0.192921	**0.001063**	0.349636
SNIP1	0.196798	**0.000836**	0.277681
EGFR	0.197612	**0.000795**	0.264721
PLEKHF2	0.203192	**0.000558**	0.190262
BRD2	0.205384	**0.000484**	0.166588
FBXL12	0.211416	**0.000325**	0.113261
ZC3H7A	0.211958	**0.000314**	0.109546
AASS	0.212452	**0.000304**	0.106281
GORASP1	0.212715	**0.000298**	0.104719
HECTD1	0.216721	**0.000227**	**0.080486**
ID4	0.218854	**0.000196**	**0.069698**
EPS15	0.219647	**0.000186**	**0.066348**
VPS39	0.227016	**0.000111**	**0.040234**
FAM8A1	0.227878	**0.000104**	**0.038085**
TLE1	0.227894	**0.000104**	**0.038085**
TIE1	0.228615	**9.85E-05**	**0.036255**
NFATC2	0.228959	**9.61E-05**	**0.035463**
ZNF503	0.233729	**6.78E-05**	**0.02533**
SEPSECS	0.233749	**6.77E-05**	**0.02533**
PCNT	0.247644	**2.35E-05**	**0.009038**
PDE5A	0.251562	**1.73E-05**	**0.006702**
PRKAR2B	0.257081	**1.11E-05**	**0.004353**
MARK3	0.263999	**6.25E-06**	**0.002508**
GOLGB1	0.266484	**5.07E-06**	**0.002039**
LUC7L3	0.269552	**3.91E-06**	**0.001594**

KDR	0.293332	**4.62E-07**	**0.000194**
FBLN5	0.300646	**2.30E-07**	**9.75E-05**
USP54	0.30218	**1.98E-07**	**8.42E-05**
SUN2	0.312798	**6.91E-08**	**2.97E-05**
TAPT1	0.322906	**2.44E-08**	**1.05E-05**
PLEKHA5	0.343144	**2.70E-09**	**1.19E-06**
AKAP9	0.38692	**1.30E-11**	**5.81E-09**
SLC44A2	0.387422	**1.22E-11**	**5.45E-09**
WFS1	0.398271	**2.85E-12**	**1.29E-09**

Table S2. Top 40 most connected genes in the **normal** lung tissue Low, Medium, and High **MEL-Index** subgroups of the samples.

	MEL-Index		
	Low	**Medium**	**High**
1	*TOR1A*	*REEP5*	*STOML2*
2	*SDF2*	*RAB14*	*NDUFAF1*
3	*ZDHHC5*	*COMT*	*EXOSC5*
4	*GPAA1*	*HDAC2*	*ALG5*
5	*STOML2*	*CYB5B*	*GHITM*
6	*RAE1*	*RAB5C*	*EIF4E2*
7	*ETFA*	*FBXL12*	*SLC30A6*
8	*GHITM*	*CHMP2A*	*TIMM8B*
9	*CISD3*	*CD151*	*ATP6V1D*
10	*MRPS2*	*PMPCB*	*VTA1*
11	*PIGO*	*PMPCA*	*CISD3*
12	*EIF4H*	*EIF4H*	*TOR1A*
13	*YIF1A*	*GHITM*	*MRPS2*
14	*ATP6V1E1*	*AP2M1*	*KDM5B*
15	*SPCS1*	*PSMD8*	*IST1*
16	*RAB5C*	*ZDHHC5*	*MRPS27*
17	*ATP6V1D*	*CYB5R3*	*PPT1*
18	*PUSL1*	*RAB7A*	*ACADM*
19	*DNAJC19*	*GNB1*	*ATP6V1E1*
20	*GTF2F2*	*SRP19*	*TMEM97*
21	*HDAC2*	*ERP44*	*TBK1*
22	*CHMP2A*	*ATP6V1E1*	*ATP6V1A*
23	*SCAP*	*OS9*	*NDUFB9*
24	*NDUFB9*	*RAP1GDS1*	*RRP9*
25	*NEDD8*	*RBX1*	*PIGO*
26	*PSMD8*	*EXOSC8*	*HTATSF1*
27	*RAB14*	*TOR1A*	*ERLEC1*
28	*COMT*	*SDF2*	*EXOSC2*

29	*REEP5*	*GPAA1*	*ETFA*
30	*VTA1*	*GORASP1*	*GRIPAP1*
31	*HTATSF1*	*GOLGA7*	*OPTN*
32	*GOLGA7*	*RHOA*	*PRIM1*
33	*MRPS27*	*QSOX2*	*BCS1L*
34	*PDZD11*	*ATP6AP1*	*ITGAV*
35	*NUP62*	*AKAP8*	*AGPS*
36	*RBX1*	*PUSL1*	*ALG8*
37	*VPS11*	*GNG5*	*LUC7L3*
38	*OS9*	*PTGES2*	*KPNA3*
39	*PIGS*	*TOMM70A*	*ACAD9*
40	*RNF41*	*BCKDK*	*SIGMAR1*

Table S3. Genes associated with ACE2 and CD147 virus gateways.

Gene	Name	Protein	R value	P value	FDR value
ACE2	Angiotensin-converting enzyme 2	ACE2	-0,0005	9,94E-01	1
TMPRSS2	Transmembrane protease serine 2	TMPRSS2	0,1691	**4,20E-03**	1
SLC16A3	Solute Carrier Family 16 Member 3	MCT4	-0,4162	**2,28E-13**	**1,03E-10**
PPIB	Peptidylprolyl Isomerase B	CypB	-0,3859	**1,48E-11**	**6,61E-09**
S100A9	S100 Calcium Binding Protein A9	S100A9	-0,3095	**9,63E-08**	**4,11E-05**
PPIA	Peptidylprolyl Isomerase A	CypA	-0,2695	**3,92E-06**	**1,59E-03**
SLC16A7	Solute Carrier Family 16 Member 7	MCT2	-0,2573	**1,09E-05**	**4,29E-03**
CD44	Cluster of Differentiation 44	CD44	-0,249	**2,12E-05**	**8,18E-03**
SLC2A1	Solute Carrier Family 2 Member 1	GLUT1	-0,1798	**2,30E-03**	7,23E-01
BSG (CD147)	Basigin	CD147	-0,1473	**1,28E-02**	1
NFATC4	Nuclear Factor Of Activated T Cells 4	NFATC4	-0,0126	8,33E-01	1
NFATC3	Nuclear Factor Of Activated T Cells 3	NFATC3	0,0516	3,85E-01	1
NFAT5	Nuclear Factor Of Activated T Cells 5	NFAT5	0,1307	**2,74E-02**	1
BSG (CD147)	Basigin	CD147	-0,1473	**1,28E-02**	1
ITGB1	Integrin beta-1	ITGB1	-0,1216	**4,01E-02**	1
LGALS3	Lectin, Galactoside-Binding, Soluble, 3	Gal-3	-0,0892	1,33E-01	1
SLC3A2	Solute Carrier Family 3 Member 2	CD98	-0,0807	1,74E-01	1
GP6	Glycoprotein VI Platelet	GPVI	0,0557	3,49E-01	1
SPN	Sialophorin	CD43	0,0587	3,23E-01	1
ITGA6	Integrin alpha-6	ITGA6	0,1898	**1,20E-03**	4,18E-01
BSG (CD147)	Basigin	CD147	-0,1473	**1,28E-02**	1
PSENEN	Presenilin Enhancer, Gamma-Secretase Subunit	PSENEN	-0,1025	8,41E-02	1
APH1B	Aph-1 Homolog B, Gamma-Secretase Subunit	Y-secretase	-0,0926	1,19E-01	1
PSEN1	Presenilin 1	PSEN1	-0,0477	4,23E-01	1
NOD2	Nucleotide-binding oligomerization domain protein 2	NOD2	-0,03	6,14E-01	1
APH1A	Aph-1 Homolog B, Gamma-Secretase Subunit	Y-secretase	0,1336	**0,0241333**	1

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