

Supplemental information:

Leveraging the Electronic Health Record to Address the COVID-19 Pandemic

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Supplemental Table 1. Genetic variants associated at a genome-wide level with COVID-19 susceptibility and severity

rsID	Chr:Pos (GRCh37)	Reference	Alternate	Genes	Phenotype(s)	Citation
rs67579710	1:155173527	G	A	<i>KRTCAP2, TIMR46, MUC1, THBS3, MTX1</i>	Hospitalization	1
rs1381109	2:166918293	G	T	<i>SCN1A</i>	Hospitalization	1
rs10490770	3:45864732	T	C	<i>LZTFL1</i>	Critical illness and hospitalization	1
rs11385942	3:45876460	GA	G	<i>CCR9, CXCR6, FYCO1, LZTFL1, SLC6A20, XCR1</i>	Severe illness with respiratory failure	2
rs73064425	3:45901089	C	T	<i>LZTFL1</i>	Critical illness	3
rs11919389	3:101424458	T	C	<i>ZBTB11, RPL24, CEP97, NXPE3</i>	Infection susceptibility	1
rs10070196	5:13939830	A	C	<i>DNAH5</i>	Infection susceptibility	1
rs9380142	6:29798794	A	G	<i>HLA-G</i>	Critical illness	3
rs143334143	6:31121426	G	A	<i>CCHCR1</i>	Critical illness	3
rs3131294	6:32180146	G	A	<i>NOTCH4</i>	Critical illness	3
rs1886814	6:41502683	A	C	<i>FOXP4</i>	Hospitalization and infection susceptibility	1
rs72711165	8:125336564	T	C	<i>TMEM65</i>	Hospitalization	1
rs912805253/ rs529565	9:136149500	C	T	<i>ABO</i>	Hospitalization and infection susceptibility	1
rs657152	9:136139265	A	C	<i>ABO</i>	Severe illness with respiratory failure	2
rs10774671	12:113357193	G	A	<i>OAS1, OAS2, OAS3</i>	Critical illness, hospitalization, and infection susceptibility	1
rs4767027	12:113359157	T	A	<i>OAS1</i>	Hepatization and infection susceptibility	4
rs10735079	12:113380008	A	G	<i>OAS1, OAS2, OAS3</i>	Critical illness	3
rs1819040	17:44219831	T	A	<i>ARHGAP27, PLEKHM1, LINC02210-CRHR1, CRHR1, SPPL2C, MAPT, STH, KANSL1, LRRC37A, ARL17B, LRRC37A1, ARL17A, NSF, WNT3</i>	Hospitalization	1
rs77534576	17:47940666	C	T	<i>KAT7, TAC4</i>	Critical illness	1
rs2109069	19:4719443	G	A	<i>DPP9</i>	Critical illness, hospitalization, and infection susceptibility	1, 3
rs74956615	19:10427721	T	A	<i>ICAM1, ICAM4, ICAM5, ZGLP1, FDX2, RAVER1, ICAM3, TYK2</i>	Critical illness and hospitalization	1, 3
rs4801778	19:49370609	G	T	<i>PLEKHA4, PPP1R15A, TULP2, NUCB1</i>	Infection susceptibility	1
rs13050728	21:34615210	T	C	<i>IFNAR2</i>	Critical illness and hospitalization	1
rs2236757	21:34624917	G	A	<i>IFNAR2</i>	Critical illness	3
rs2834167	21:34640788	G	A	<i>IL10RB</i>	Severe illness and hepatization	4

^aACE2, Angiotensin-converting enzyme-2; Chr, Chromosome; GRCh, Genome Research Consortium human build; IFN, Interferon; Pos, position; TLR, Toll-like receptor

Supplemental References

1. Ganna A. Mapping the human genetic architecture of COVID-19 by worldwide meta-analysis. *medRxiv*. 2021:2021.2003.2010.21252820.
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3. Pairo-Castineira E, Clohisey S, Klaric L, et al. Genetic mechanisms of critical illness in COVID-19. *Nature*. 2021;591(7848):92-98.
4. Zhou S, Butler-Laporte G, Nakanishi T, et al. A Neanderthal OAS1 isoform protects individuals of European ancestry against COVID-19 susceptibility and severity. *Nat Med*. 2021:1-9.