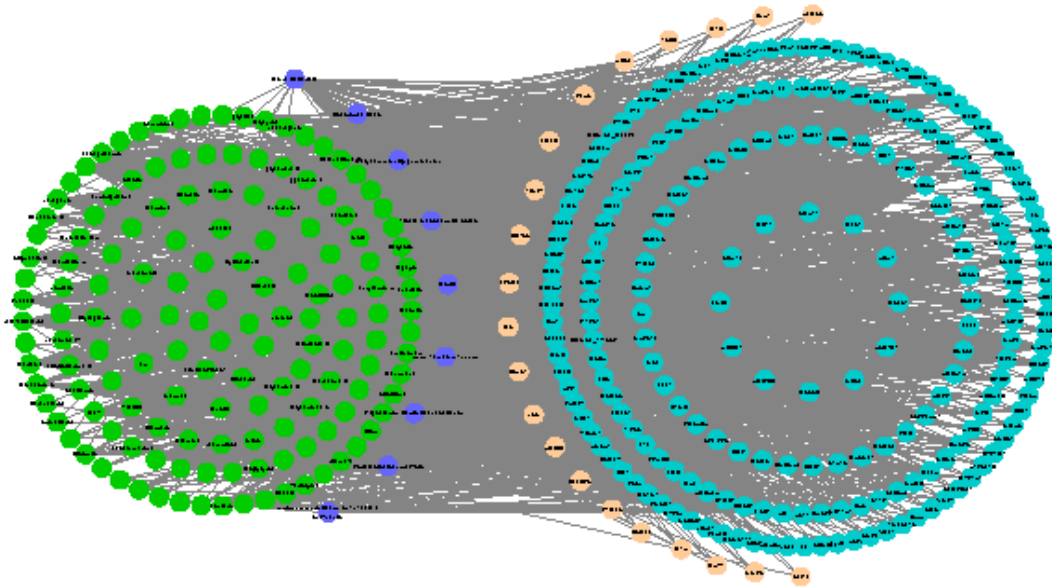
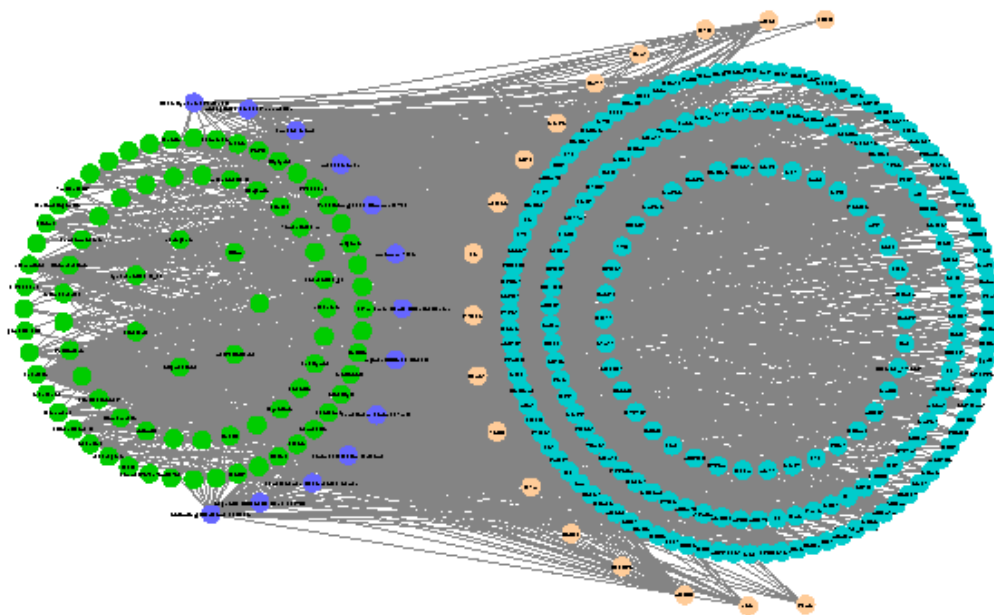


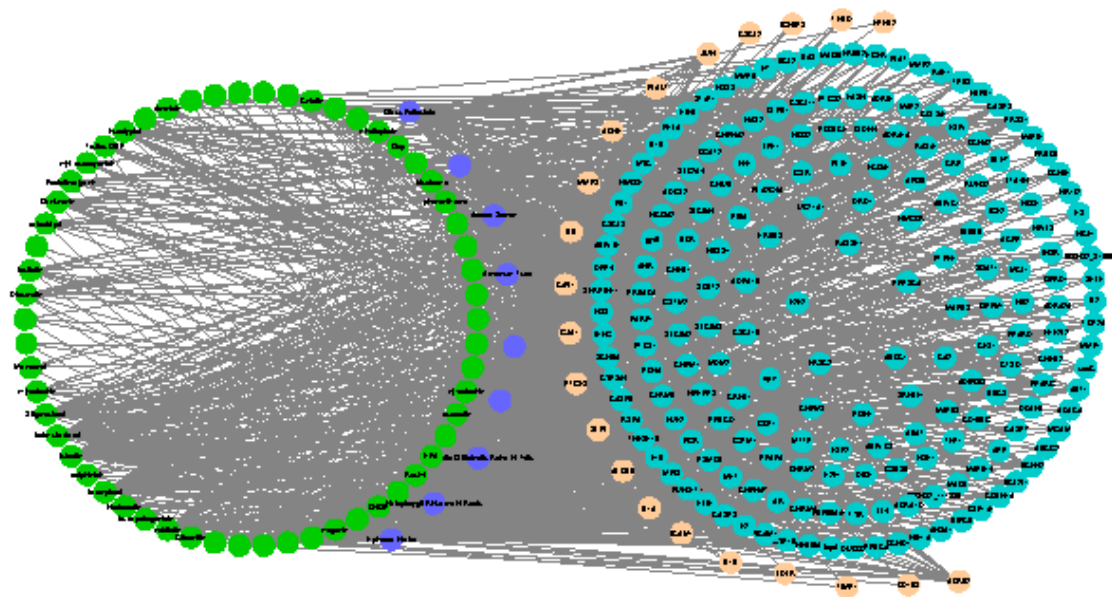
## Supplementary materials



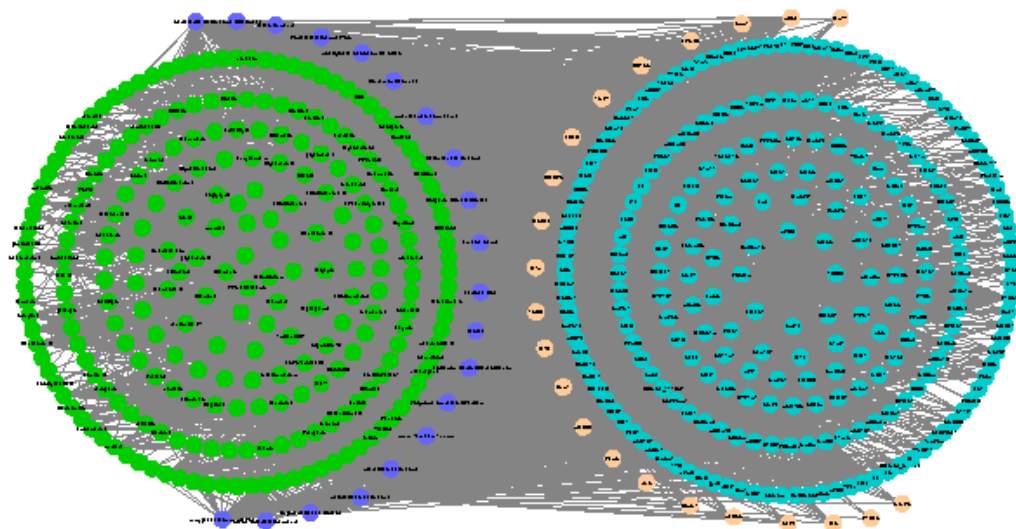
Supplementary Figure S1. A network among FPQXZ, molecules of FPQXZ, and COVID-19-related target genes.



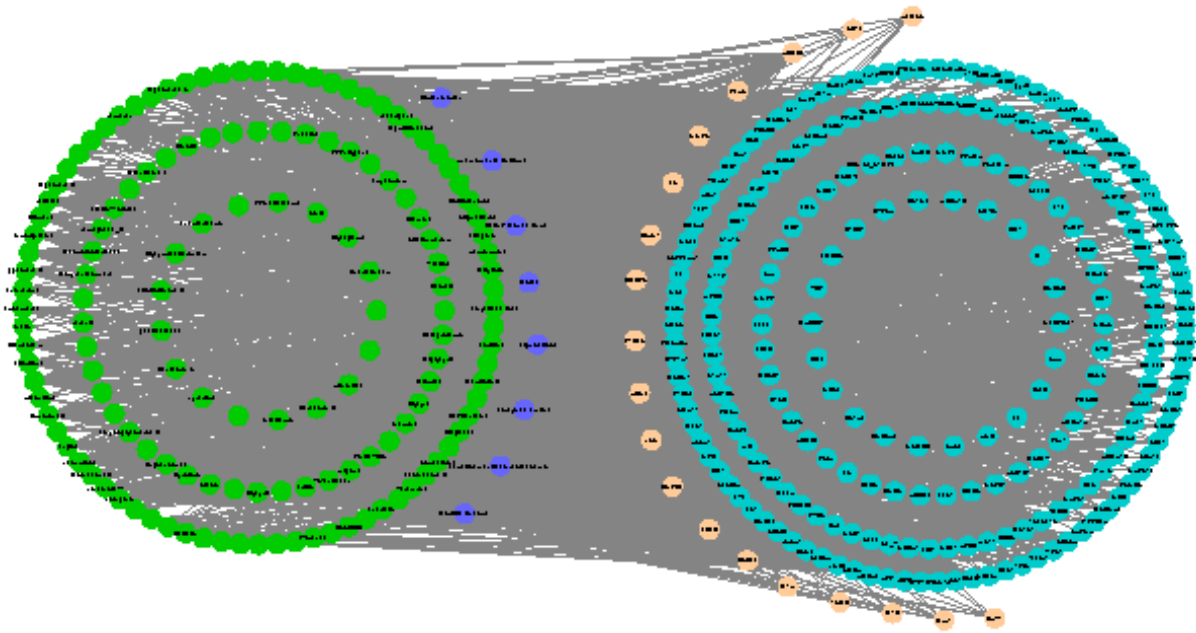
Supplementary Figure S2. A network among HSYFZ, molecules of HSYFZ, and COVID-19-related target genes.



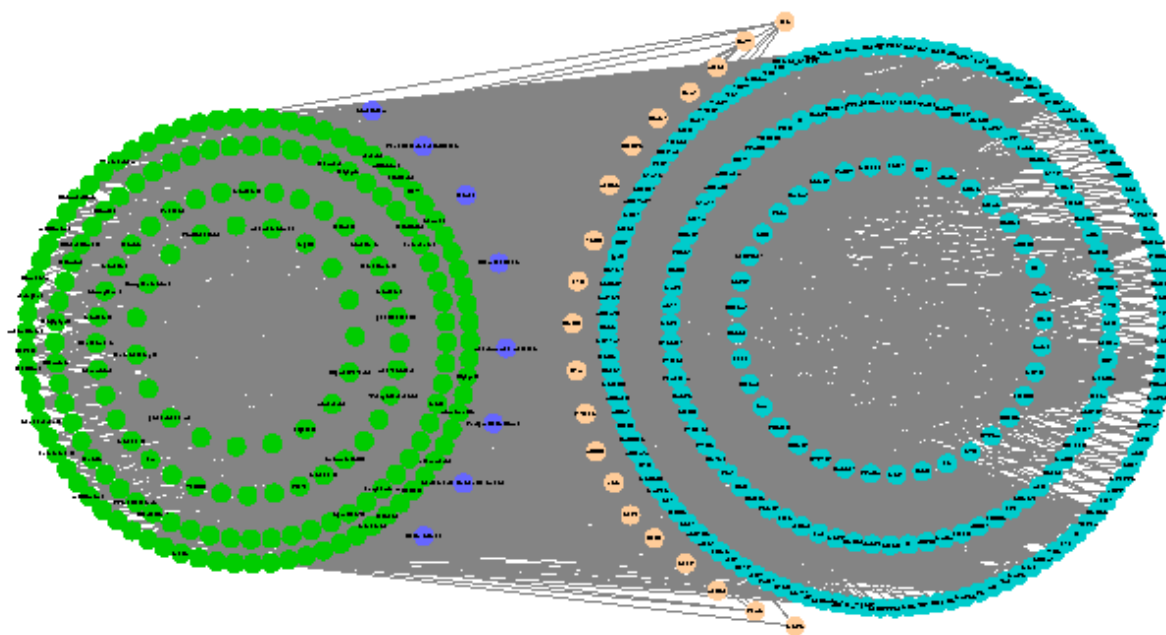
Supplementary Figure S3. A network among HSZFZ, molecules of HSZFZ, and COVID-19-related target genes.



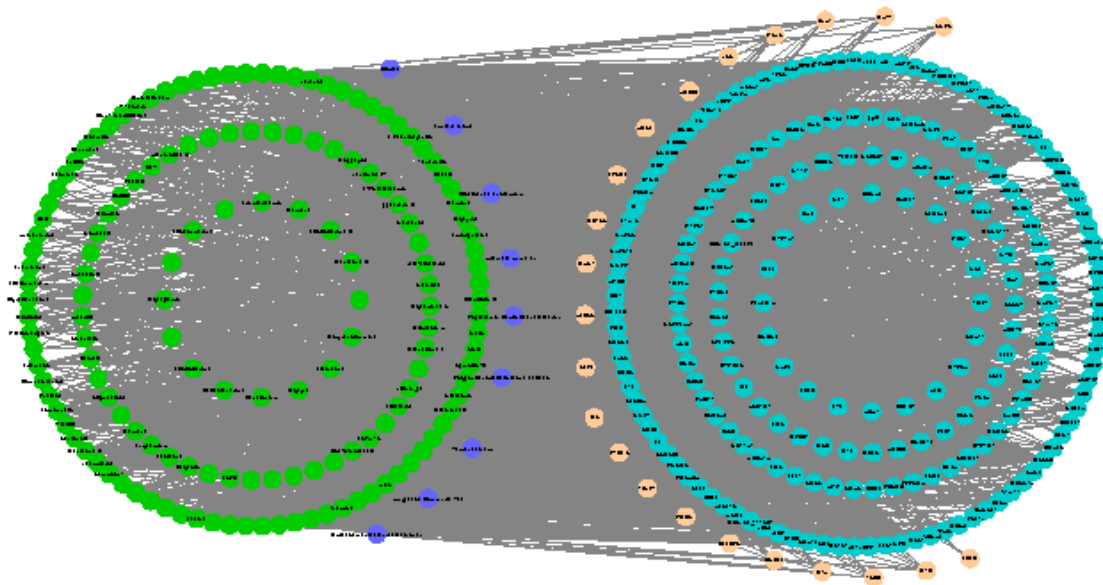
Supplementary Figure S4. A network among QFPDT, molecules of QFPDT, and COVID-19-related target genes.



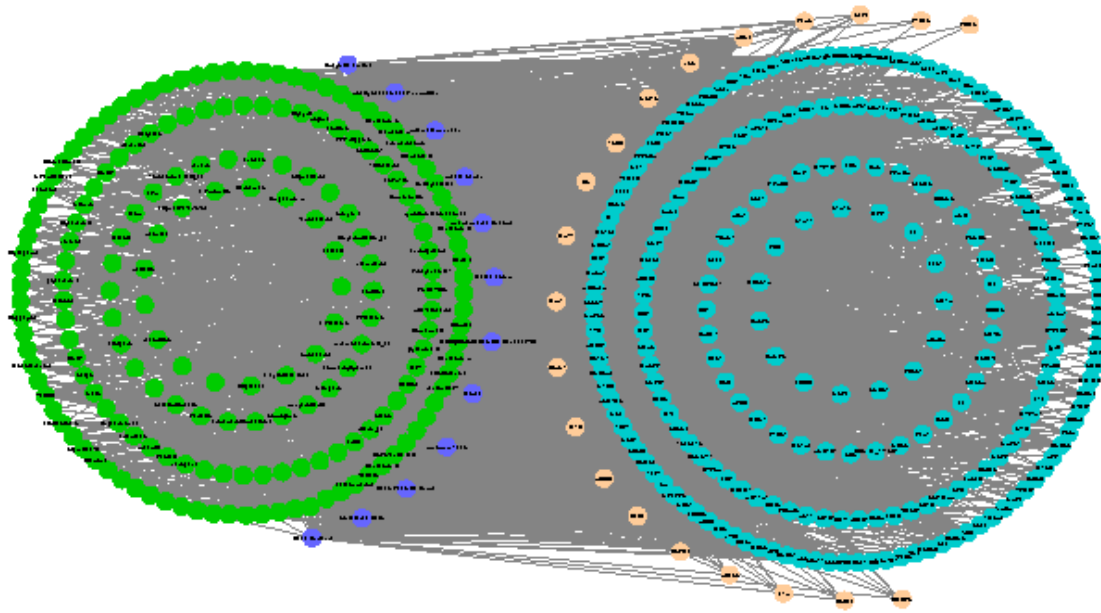
Supplementary Figure S5. A network among QYLFZ, molecules of QYLFZ, and COVID-19-related target genes.



Supplementary Figure S6. A network among QYLXZ, molecules of QYLXZ, and COVID-19-related target genes.

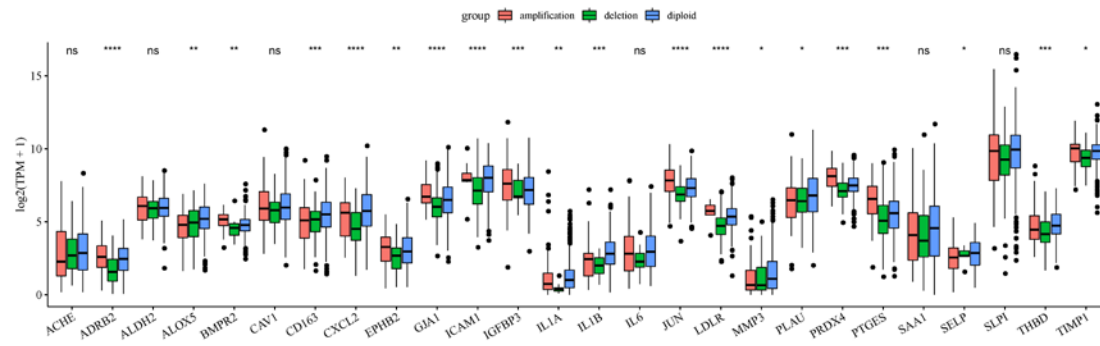


Supplementary Figure S7. A network among SDYFZ, molecules of SDYFZ, and COVID-19-related target genes.

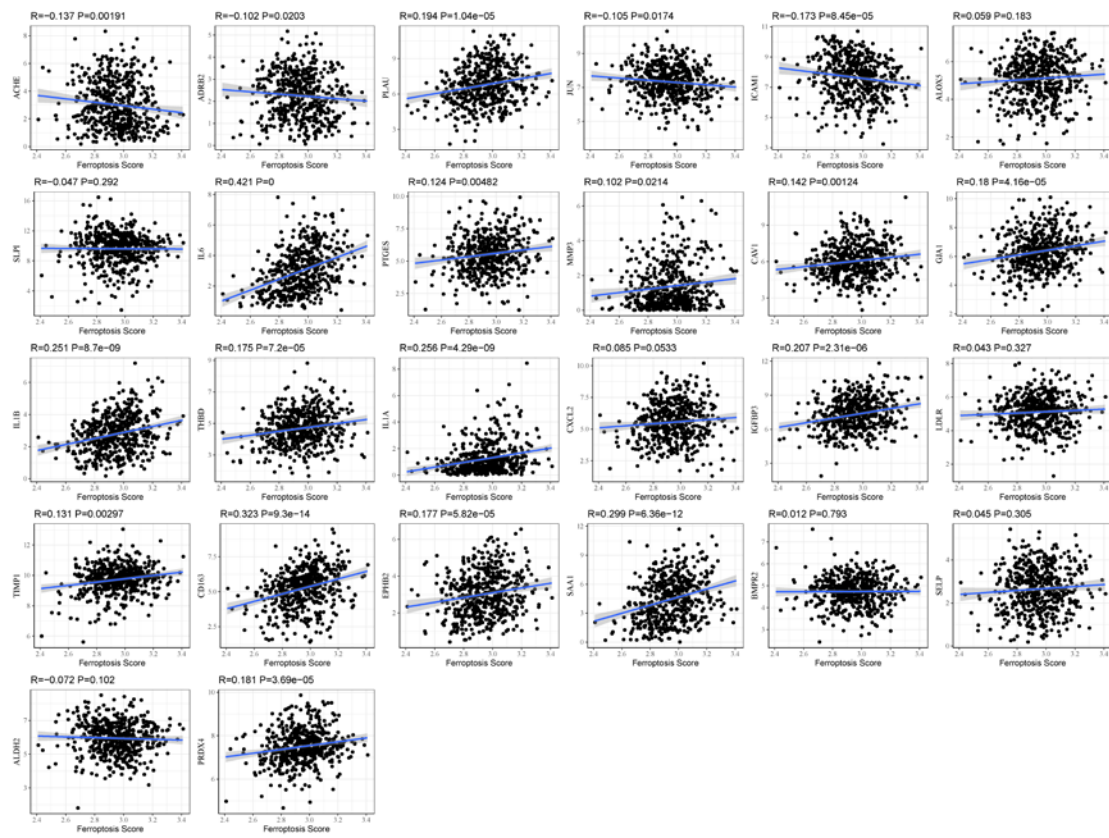


Supplementary Figure S8. A network among SRYFZ, molecules of SRYFZ, and COVID-19-related target genes.

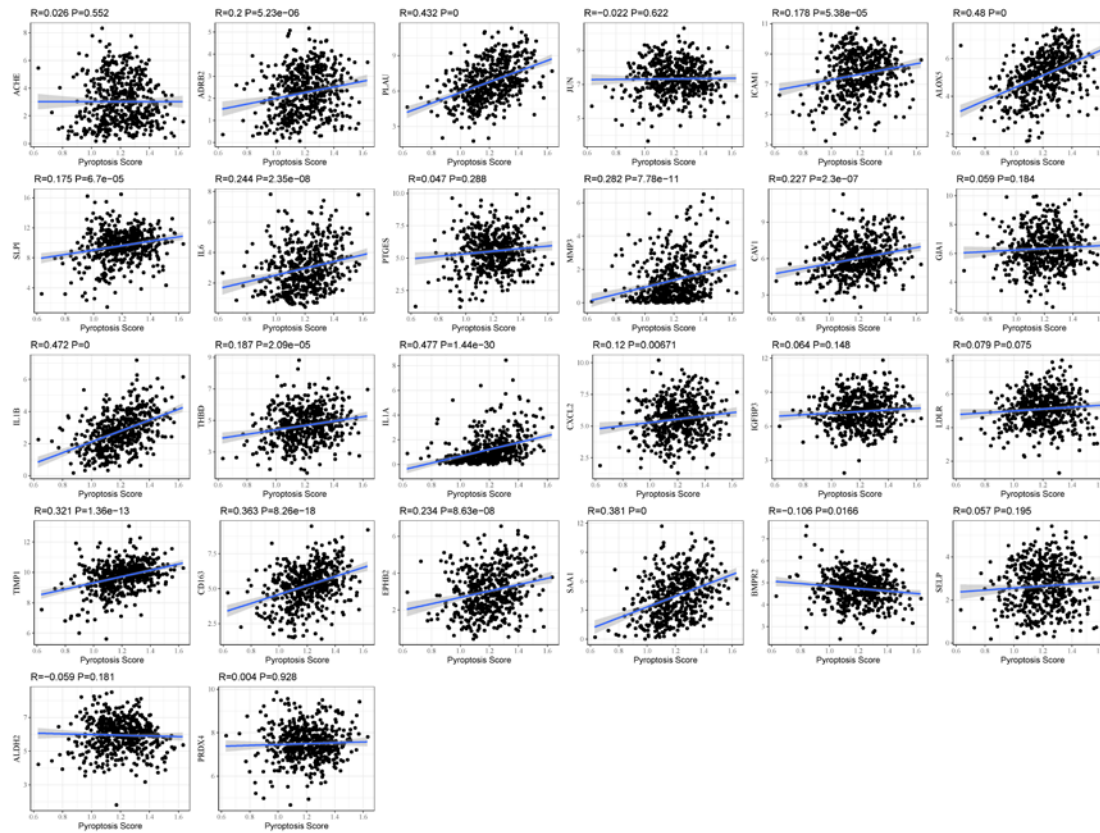




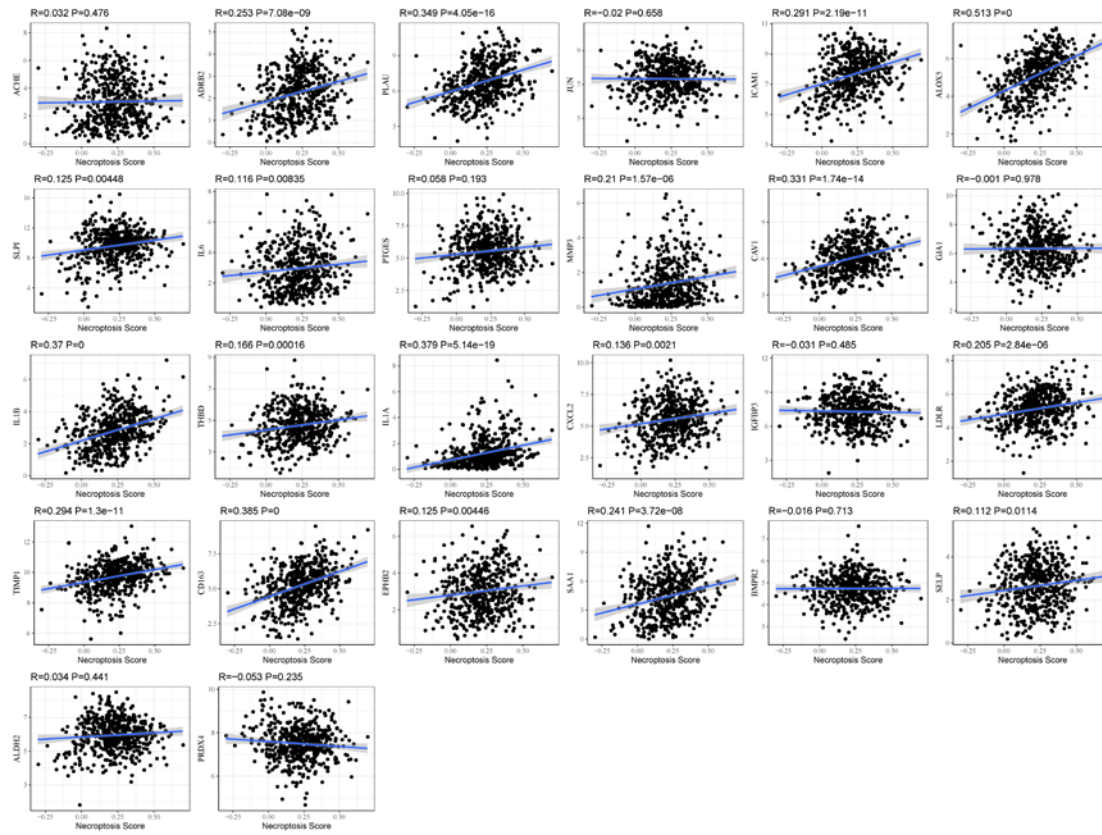
Supplementary Figure S9. The expression of 26 COVID-19 target genes grouped by CNVs.



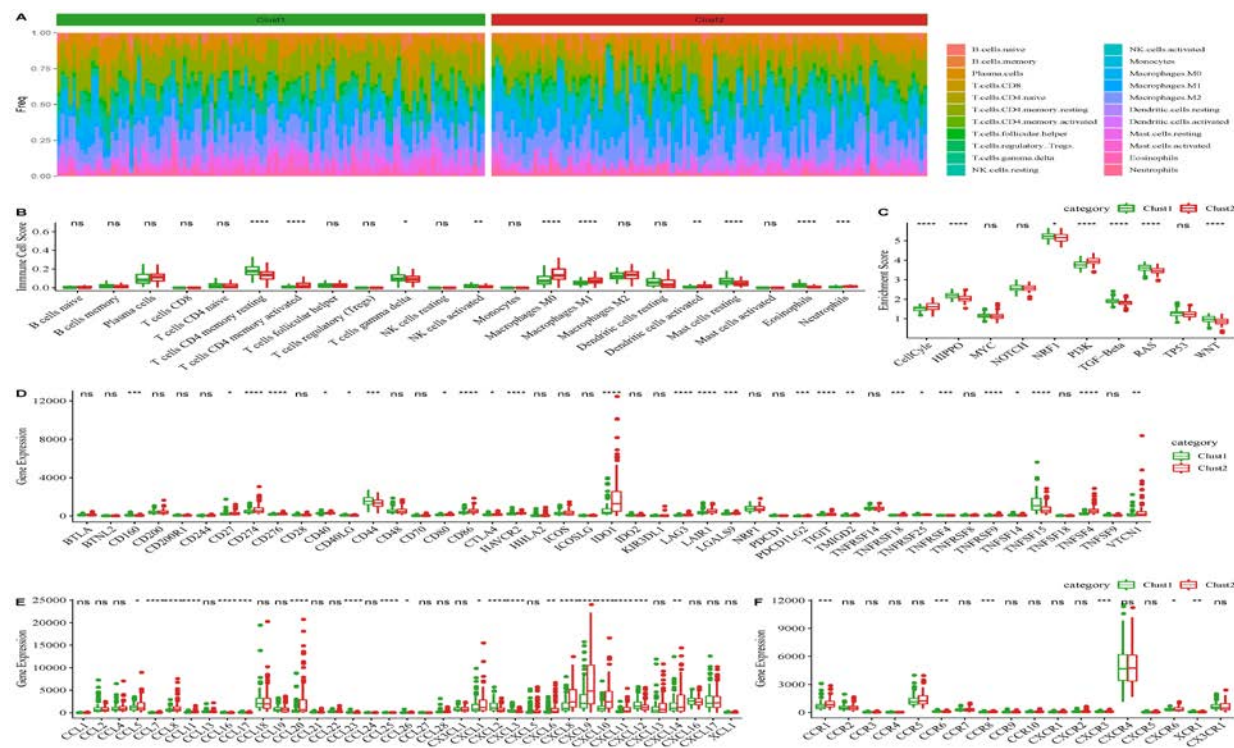
Supplementary Figure S10. Pearson correlation analysis between 26 COVID-19 target genes and ferroptosis.



Supplementary Figure S11. Pearson correlation analysis between 26 COVID-19 target genes and pyroptosis.



Supplementary Figure S12. Pearson correlation analysis between 26 COVID-19 target genes and necroptosis.



Supplementary Figure S13. TME features of two molecular subtypes in GSE31210 dataset. (A) A heatmap of the proportion of 22 immune cells in two subtypes. (B) Enrichment score of 22 immune cells in two subtypes. (C) Enrichment score of 10 oncogenic pathways. (D) Expression of 47 immune checkpoints in two subtypes. (E-F) Expression of chemokines (E) and chemokine receptors (F) in two subtypes. Student t test was conducted between two groups. ns, no significance. \* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$ , \*\*\*\* $P < 0.0001$ .

Supplementary Table S1. The relations among the top 10 effective molecules of FPQXZ, TCMs and COVID-19-related genes.

Molecule ID	Molecules	Targets	COVID-19-related genes	TCMs
MOL000098	quercetin	Beta-2 adrenergic receptor	ADRB2	Hedysarum Multijugum Maxim.
MOL000098	quercetin	Beta-2 adrenergic receptor	ADRB2	licorice
MOL000098	quercetin	Beta-2 adrenergic receptor	ADRB2	Pogostemon Cablin (Blanco) Benth.
MOL003896	7-Methoxy-2-methyl isoflavone	Beta-2 adrenergic receptor	ADRB2	Codonopsis Radix
MOL003896	7-Methoxy-2-methyl isoflavone	Beta-2 adrenergic receptor	ADRB2	licorice
MOL000378	7-O-methylisomucronulatol	Beta-2 adrenergic receptor	ADRB2	Hedysarum Multijugum Maxim.
MOL000392	formononetin	Beta-2 adrenergic receptor	ADRB2	Hedysarum Multijugum Maxim.
MOL000392	formononetin	Beta-2 adrenergic receptor	ADRB2	licorice
MOL000358	beta-sitosterol	Beta-2 adrenergic receptor	ADRB2	Amomum Aurantiacum H. T. Tsai Et S. W. Zhao
MOL000358	beta-sitosterol	Beta-2 adrenergic receptor	ADRB2	Arum Ternatum Thunb.
MOL000098	quercetin	Acetylcholinesterase	ACHE	Hedysarum Multijugum Maxim.
MOL000098	quercetin	Acetylcholinesterase	ACHE	licorice
MOL000098	quercetin	Acetylcholinesterase	ACHE	Pogostemon Cablin (Blanco) Benth.
MOL000422	kaempferol	Acetylcholinesterase	ACHE	Hedysarum Multijugum Maxim.

Supplementary Table S2. The CNVs of 26 COVID-19 target genes.

	amplification	deletion	diploid	amplification %	deletion %	diploid %
SELP	285	5	267	51.17	0.9	47.94
IL6	224	16	314	40.43	2.89	56.68
IGFBP3	201	21	333	36.22	3.78	60
GJA1	17	186	352	3.06	33.51	63.42
LDLR	11	184	364	1.97	32.92	65.12
ICAM1	12	178	366	2.16	32.01	65.83
THBD	110	65	379	19.86	11.73	68.41
ADRB2	51	116	387	9.21	20.94	69.86
CD163	72	95	388	12.97	17.12	69.91
ACHE	124	31	399	22.38	5.6	72.02
CAV1	125	29	400	22.56	5.23	72.2
SLPI	104	48	402	18.77	8.66	72.56
PTGES	21	126	408	3.78	22.7	73.51
MMP3	76	53	425	13.72	9.57	76.71
EPHB2	55	64	442	9.8	11.41	78.79
JUN	53	61	440	9.57	11.01	79.42
PLAU	37	75	442	6.68	13.54	79.78
ALDH2	46	57	450	8.32	10.31	81.37
ALOX5	44	55	457	7.91	9.89	82.19
SAA1	36	56	462	6.5	10.11	83.39
CXCL2	33	58	463	5.96	10.47	83.57
PRDX4	14	64	477	2.52	11.53	85.95
TIMP1	25	45	484	4.51	8.12	87.36
IL1A	56	9	490	10.09	1.62	88.29

IL1B	56	9	490	10.09	1.62	88.29
BMPR2	41	15	500	7.37	2.7	89.93

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