SARS-CoV-2 JN.1 Analysis Report

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Initial Report:	December 17, 2023
Last Update:	December 18, 2023, 21.14am EST
Sequence Source:	NCBI GENBANK https://www.ncbi.nlm.nih.gov/sars-cov-2/
Software:	GENEIDO 1.0
Function:	Pathogen genome analysis and symptom prediction
URL:	www.geneido.com and
	To read all the SARS-CoV-2 Analysis Reports from Jan 2020, visit www.geneido.com/Reports.html

Reference:

1. Can Omicron Casuse “White Lung”? http://geneido.com/Sample-Reports/BA286-Report-091723-rev2.pdf
2. BA.2.86 Analysis Report and Symptoms Prediction http://geneido.com/Sample-Reports/Omicron-Cause-WhiteLung.pdf
3. There are THREE COVID-19 out there? COVID-19 Strains Comparison and Symptoms Prediction http://geneido.com/Sample-Reports/Comparison-S1-S2-S3-041520.pdf

Summary

Data Source and Analysis Method

1. A new SARS-CoV-2 variant JN.1 is spreading fast since September 2023 in the US, UK and maybe China(?).
2. As of December 18, 2023, 1347 complete genome of JN.1 strains had been posted on GeneBank from US and UK. Only data from the US are being analyzed. This is because sequences from UK are packed with "Ns".
3. Collection date ranged from 9/27/2023 to 12/6/2023.
4. Among the 882 sequences on GeneBank from the US, 20 samples are randomly selected and analyzed. The sample covers 12 different states, from September to December of 2023.

4. For new readers to grasp the concepts and terminologies listed in this report, please check out the Reference reports listed above.

Q&A

1. Would JN.1 cause "White Lung"?

   Answer: YES. For the same reason that Omicron causes White Lung. Please refer to ***Can Omicron Casuse "White Lung"?*** Published on December 22, 2022 (http://geneido.com/Sample-Reports/BA286-Report-091723-rev2.pdf)

2. What is "White Lung"?

   Answer: Fluid accumulation (lung edema) or scar tissues in the lung cause x-ray image to look white.

3. Where can I see it on the HUE Charts?

   Answer: Please see Figure 1 below.

4. Table 1 shows that JN.1 sample sequences are 65% Type S1 and 35% Type S2. However, it could change as the weather gets colder. Both S1 and S2 cause fever and White Lung.
   a. Summary of symptom of each GENEIDO Type can be found in ***BA.2.86 Analysis Report and Symptoms Prediction*** http://geneido.com/Sample-Reports/Omicron-Cause-WhiteLung.pdf.

b. For the complete symptom list, please visit ***There are THREE COVID-19 out there? COVID-19 Strains Comparison and Symptoms Prediction*** http://geneido.com/Sample-Reports/Comparison-S1-S2-S3-041520.pdf.

5. We have NOT seen any of the SARS-CoV-2 variants (from Alpha to Omicron to JN.1) go outside of the THREE GENEIDO Types since the beginning of the pandemic.

NOTE: GENEIDO does not predict the spreading of the diseases.

GENEIDO Type S1	GENEIDO Type S2	GENEIDO Type S3

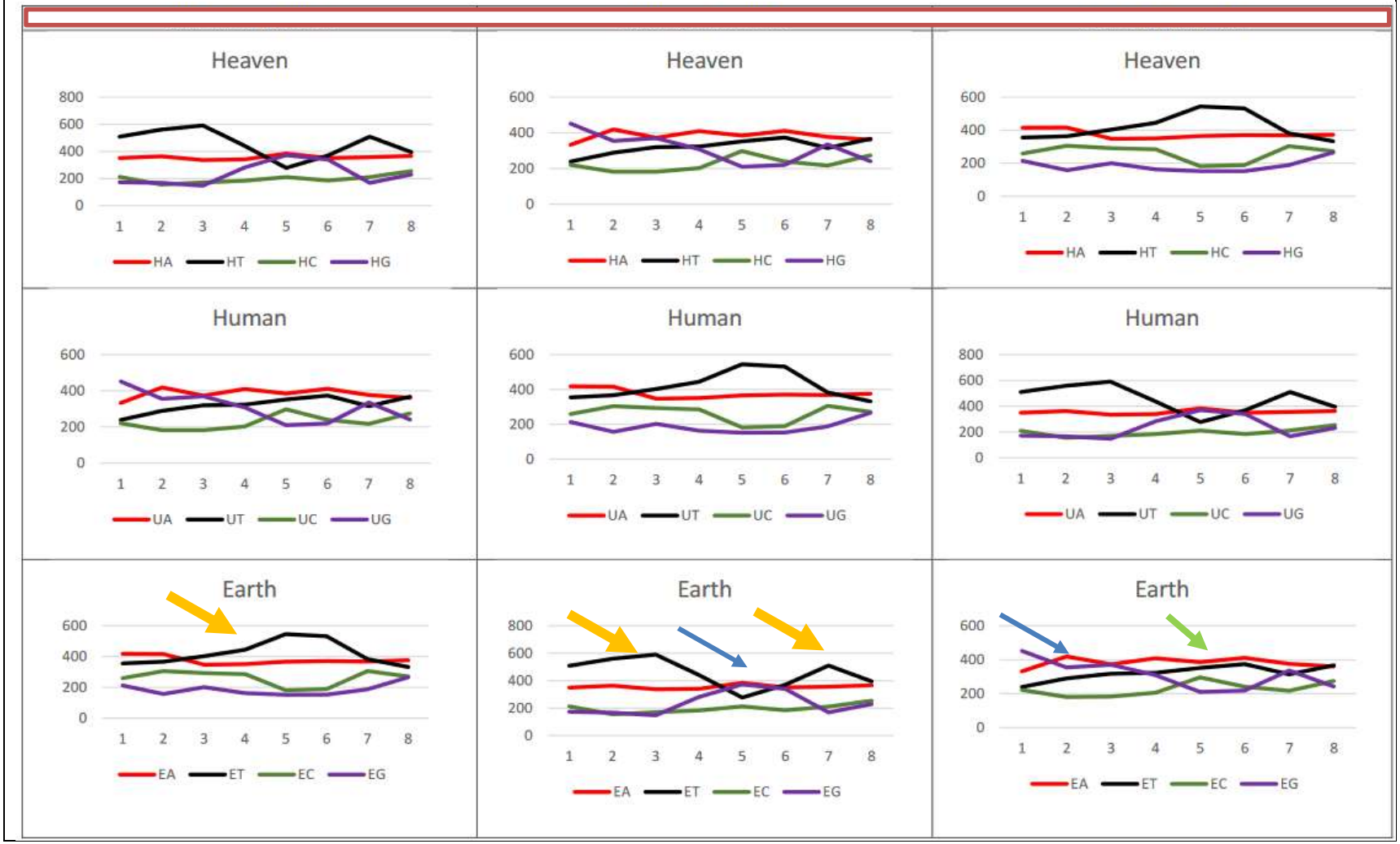

Fig 1. Yellow arrows indicate where fluid accumulation may occur. Blue arrows indicate where scar tissues may appear. Green arrow indicates where pus may form.

GENBANK Code	GENEIDO Type	Region	Collection Date	Data Source URL
OR681650	S2	US-CA	9/27/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR681650.1?report=fasta
OR674602	S1	US-NJ	10/2/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR674602.1?report=fasta
OR708245	S1	US-IL	10/7/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR708245.1?report=fasta
OR708362	S1	US-CT	10/9/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR708362.1?report=fasta
OR722352	S2	US-VA	10/9/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR722352.1?report=fasta
OR813556	S1	US-FL	10/13/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR813556.1?report=fasta
OR858087	S1	US-FL	11/6/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR858087.1?report=fasta
OR858059	S1	US-NJ	11/6/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR858059.1?report=fasta
OR858046	S1	US-NY	11/6/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR858046.1?report=fasta
OR864432	S2	US-AZ	11/7/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR864432.1?report=fasta
OR957580	S2	US-CA	11/7/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR957580.1?report=fasta
OR952252	S2	US-CA	11/30/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR952252.1?report=fasta
OR951775	S2	US-IL	12/1/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR951775.1?report=fasta
OR951787	S2	US-MD	12/1/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR951787.1?report=fasta
OR973778	S1	US-SC	12/5/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR973778.1?report=fasta
OR976997	S1	US-VA	12/6/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR976997.1?report=fasta
OR976990	S1	US-NV	12/6/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR976990.1?report=fasta
OR977028	S1	US-NJ	12/6/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR977028.1?report=fasta
OR977022	S1	US-MD	12/6/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR977022.1?report=fasta
OR977025	S1	US-PA	12/6/2023	https://www.ncbi.nlm.nih.gov/nuccore/OR977025.1?report=fasta

Table 1 SARS-CoV-2 JN.1GENEIDO Analysis December 18 2023