



1 Basic Info

Sample ID	External Sample ID(Optional)
123123	1231231
Sample Information	
Z13 完成数据	

Table 1: Input Files MD5

Name	MD5
Z3-13.DNA.fq.gz	65dea1edcc5ff4a1ae530290e5eea4d2

Table 2: Input Statistics

Total Data	5.82GB
Total # of Reads	46680684
Total # of BP	7002102600
Minimizer length	31

Analysis System: us-cn
Analysis App: Apollo 2019-nCoV V1.1
Analysis Generated On: 1581994204
Analysis Time Cost: 144s

2 Results

The current thresholds are:

- Concentration : 0.0001
- DUFP(Detected Unique Frag Percentage): 0.05(i.e.,5%)

Table 3: Status Description

Status	Status Symbol
Above both user-defined detection thresholds	++
Above only one of the user-defined detection thresholds	+
Below both user-defined detection thresholds	0
Did not detect any reads	-

2.1 Bacteria

Total 19 pathogens are above user-defined detection thresholds. Of these 19, 15 are above both user-defined detection thresholds (labeled as ++), and 4 are above only one of the user-defined detection thresholds (labeled as +).

Table 4: Bacteria Pathogen

#	Status	Pathogen	Species	Genus	Concentration	# of BP	# of unique frag	DUFP	Diseases
1	++	Pseudomonas aeruginosa	Pseudomonas aeruginosa	Pseudomonas	0.134561	942210600	2175567	0.668333	Infective Endocarditis; Malakoplakia; Sepsis; Folliculitis; Bacterial Meningitis; Infectious Conjunctivitis; Sinus Infection; Brain Abscess; Infectious Arthritis; Cellulitis; Epididymitis; Ear Infections; Infectious Myositis; Pseudomonas infection; Ecthyma Gangrenosum; Keratitis; Urinary Tract Infections; Osteomyelitis; Lung Abscess; Prostatitis;
2	++	Serratia marcescens	Serratia marcescens	Serratia	0.103524	724886250	557016	0.262685	Sepsis; Folliculitis; Bacterial Meningitis; Trichomycosis; Infectious Conjunctivitis; Serratia Infections; Infectious Arthritis; Cellulitis; Ecthyma Gangrenosum; Keratitis; Urinary Tract Infections; Osteomyelitis;

#	Status	Pathogen	Species	Genus	Concentration	# of BP	# of unique frag	DUFP	Diseases
3	++	Escherichia coli	Escherichia coli	Escherichia	0.096387	674913750	573776	0.313971	Bacteremia; Malakoplakia; Perinephric Abscess; E. coli Infection; Sepsis; Bacterial Endophthalmitis; Bacterial Meningitis; Sinus Infection; Brain Abscess; Infectious Arthritis; Cellulitis; Epididymitis; Ear Infections; Pelvic Inflammatory Disease; Bacterial Gastroenteritis; Infectious Myositis; Myocardial Abscess; Ecthyma Gangrenosum; Spontaneous Bacterial Peritonitis; Urinary Tract Infections; Prostatitis;
4	++	Enterococcus faecium	Enterococcus faecium	Enterococcus	0.092101	644903250	1021223	0.711993	Bacteremia; Sepsis; Enterococcal Infections;
5	++	Acinetobacter baumannii	Acinetobacter baumannii	Acinetobacter	0.082337	576530550	799834	0.465192	Sepsis; Folliculitis; Cellulitis; Acinetobacter Infections;
6	++	Klebsiella oxytoca	Klebsiella oxytoca	Klebsiella	0.077159	540273300	1366411	0.621191	Klebsiella Infections; Folliculitis;
7	++	Klebsiella pneumoniae	Klebsiella pneumoniae	Klebsiella	0.067997	476123400	1191856	0.727199	Bacteremia; Klebsiella Infections; Sepsis; Sinus Infection; Brain Abscess; Epididymitis; Infectious Myositis; Ecthyma Gangrenosum; Spontaneous Bacterial Peritonitis; Keratitis; Urinary Tract Infections; Lung Abscess; Prostatitis;
8	++	Streptococcus agalactiae	Streptococcus agalactiae	Streptococcus	0.013009	91088100	470811	0.625638	Infective Endocarditis; Bacteremia; Sepsis; Bacterial Endophthalmitis; Bacterial Meningitis; Infectious Arthritis; Cellulitis; Pelvic Inflammatory Disease; Myocardial Abscess; Group B Strep Infections; Urinary Tract Infections; Impetigo and Ecthyma; Osteomyelitis;
9	++	Enterococcus faecalis	Enterococcus faecalis	Enterococcus	0.009789	68546400	1046870	0.610063	Bacteremia; Sepsis; Bacterial Endophthalmitis; Enterococcal Infections; Urinary Tract Infections; Prostatitis;
10	++	Streptococcus pyogenes	Streptococcus pyogenes	Streptococcus	0.009252	64785750	501565	0.606641	Infective Endocarditis; Bacteremia; Sepsis; Pharyngitis; Sinus Infection; Infectious Arthritis; Cellulitis; Group A Strep Infections; Ear Infections; Acute Glomerulonephritis; Toxic Shock Syndrome; Infectious Myositis; Myocardial Abscess; Ecthyma Gangrenosum; Impetigo and Ecthyma; Osteomyelitis; Lung Abscess;
11	++	Klebsiella aerogenes	Klebsiella aerogenes	Klebsiella	0.006771	47409750	1204989	0.644736	Enterobacter infections; Prostatitis;

#	Status	Pathogen	Species	Genus	Concentration	# of BP	# of unique frag	DUFP	Diseases
12	++	Staphylococcus aureus	Staphylococcus aureus	Staphylococcus	0.002350	16457100	781921	0.504444	Infective Endocarditis; Bacteremia; Staphylococcal Infections; Malakoplakia; Perinephric Abscess; Sepsis; Bacterial Endophthalmitis; Folliculitis; Bacterial Meningitis; Infectious Conjunctivitis; Sinus Infection; Brain Abscess; Infectious Arthritis; Cellulitis; Ear Infections; Acute Glomerulonephritis; Toxic Shock Syndrome; Bacterial Gastroenteritis; Infectious Myositis; Myocardial Abscess; Ecthyma Gangrenosum; Keratitis; Urinary Tract Infections; Impetigo and Ecthyma; Osteomyelitis; Lung Abscess; Prostatitis; Felon;
13	+	Serratia plymuthica	Serratia plymuthica	Serratia	0.001213	8491200	8540	0.001757	Sepsis; Serratia Infections;
14	++	Listeria monocytogenes	Listeria monocytogenes	Listeria	0.000833	5834250	749571	0.341687	Bacteremia; Sepsis; Bacterial Meningitis; Brain Abscess; Bacterial Gastroenteritis; Listeriosis;
15	++	Staphylococcus epidermidis	Staphylococcus epidermidis	Staphylococcus	0.000686	4806150	601808	0.387219	Infective Endocarditis; Bacteremia; Staphylococcal Infections; Sepsis; Bacterial Endophthalmitis; Bacterial Meningitis; Infectious Arthritis; Ecthyma Gangrenosum;
16	++	Enterobacter cloacae	Enterobacter cloacae	Enterobacter	0.000657	4600500	479460	0.383980	Bacteremia; Enterobacter infections; Sepsis; Brain Abscess; Cellulitis; Urinary Tract Infections;
17	+	Streptococcus pneumoniae	Streptococcus pneumoniae	Streptococcus	0.000249	1745550	14718	0.013930	Bacteremia; Perinephric Abscess; Sepsis; Bacterial Endophthalmitis; Acute Bronchitis; Bacterial Meningitis; Infectious Conjunctivitis; Sinus Infection; Brain Abscess; Infectious Arthritis; Cellulitis; Ear Infections; Acute Glomerulonephritis; Infectious Myositis; Myocardial Abscess; Spontaneous Bacterial Peritonitis; Keratitis; Pneumococcal Disease; Osteomyelitis; Lung Abscess;
18	+	Acinetobacter calcoaceticus	Acinetobacter calcoaceticus	Acinetobacter	0.000117	819300	1320	0.000622	Acinetobacter Infections;
19	+	Streptococcus canis	Streptococcus canis	Streptococcus	0.000102	710850	1315	0.001727	Pharyngitis; Cellulitis; Myocardial Abscess; Impetigo and Ecthyma;

2.2 Fungi

Total 3 pathogens are above user-defined detection thresholds. Of these 3, 0 are above both user-defined detection thresholds (labeled as ++), and 3 are above only one of the user-defined detection thresholds (labeled as +).

Table 5: Fungi Pathogen

#	Status	Pathogen	Species	Genus	Concentration	# of BP	# of unique frag	DUFP	Diseases
1	+	Candida albicans	Candida albicans	Candida	0.001134	7941000	6080	0.001207	Infective Endocarditis; Candidiasis; Perinephric Abscess; Sepsis; Fungal Eye Infections; Fungal Meningitis; Brain Abscess; Infectious Arthritis; Onychomycosis; Ear Infections; Acute Glomerulonephritis; Infectious Myositis; Ringworm; Ecthyma Gangrenosum; Fungal Pneumonia; Keratitis; Urinary Tract Infections; Prostatitis;
2	+	Candida dubliniensis	Candida dubliniensis	Candida	0.001005	7040100	5239	0.001029	Candidiasis;
3	+	Pichia kudriavzevii	Pichia kudriavzevii	Pichia	0.000155	1085700	279	0.000071	Candidiasis; Infectious Myositis;

2.3 Virus

Total 0 pathogens are detected.

2.4 Protozoa

Total 0 pathogens are detected.

2.5 Archaea

Total 0 pathogens are detected.

2.6 Wuhan 2019 nCoV, SARS and MERS

Table 6: Results for Wuhan 2019 nCoV, SARS and MERS

#	Status	Pathogen	Species	Genus	Concentra	# of BP	# of unique frag	DUFP	Diseases
1	-	Wuhan seafood market pneumonia virus	Wuhan seafood market pneumonia virus	Betacoronavirus	0	0	0	0	Wuhan 2019 Novel Coronavirus Infection;
2	-	Middle East respiratory syndrome-related coronavirus	Middle East respiratory syndrome-related coronavirus	Betacoronavirus	0	0	0	0	Middle East Respiratory Syndrome; Viral Pneumonia;
3	-	Severe acute respiratory syndrome-related coronavirus	Severe acute respiratory syndrome-related coronavirus	Betacoronavirus	0	0	0	0	Severe Acute Respiratory Syndrome; Viral Pneumonia;

2.7 Appendix List

The complete list of pathogen detected, regardless of concentration threshold, is included in the Appendix file [appendix_en.pdf].



3 Note

Concentration of a pathogen is the percentage of its data in the total sample data. A higher concentration indicates stronger evidence of this pathogen being present in the sample. A very small concentration might be from sequencing error, instead of the pathogen actually being in the data. For example, 0.0005 means 0.05% of the data is from this given pathogen.

Each pathogen has a collection of sequence fragments that can be used to uniquely identify this pathogen, and these fragments are called unique fragments of this pathogen. A higher percentage of detected unique fragments indicates stronger evidence of this pathogen being present in the sample. A very small percentage might be from sequencing error, instead of the pathogen actually being in the data. For example, 0.05 means 5% of known unique fragments for a given pathogen have been detected in the data.

Methodology: the nucleic acid sequences of a data file were analyzed, and the sequences were compared with known pathogen sequences in the database. The detection conclusion was based on the sequence comparison results, and the thresholds selected at the beginning of the analysis.

Database: the database used in this analysis contains [434] pathogens, in total [8517] pathogen genomes. For detection accuracy, the database also contains [25092] background genomes of pathogenic and nonpathogenic sources.

Warning: the above results are for reference use only, and should not be used as the final clinical diagnosis. Please consult with a licensed medical provider for proper interpretation of the results. Pathogens below sequencing and/or data analysis detection limits cannot be properly identified. There might be other pathogens beyond the scope of the database and/or current known knowledge.

Report generated by : _____
Name Signature Date

Report approved by : _____
Name Signature Date