assembly_summary_genbank.txt 1,321,179 genome sequences (July 5th, 2022) Extract species names: removed strain name, subsp names, changed HMT XXX to HMT-XXX List of species names Screen for potential HOMD genomes: 387,630 genomes Exclude "metagenomes" "Complete Genome "

Download Genbank assembly records

Compile HOMD taxon names: **HOMD Species Names (822)** Remove "clade" designation

822 HOMD Scientific Names

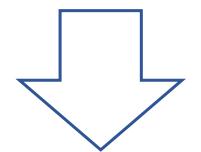
- Contains "oral taxon xxx"



- 303 verified Rothia, Veillonella and Streptococcus species
- Exclude genomes without GCF

Order genomes in each taxon by:

- 1. "reference genome" or "representative genome"
- 2. "assembly from type material"
- " Chromosome"
 - "reference genome" or "representative genome"
 - "assembly from type material"
- Sort the remaining genomes by number of contigs



For each taxon:

if name is in the "white list"

Select all genomes

else

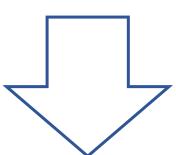
Select first (or up to) 50 genomes from the ordered genome list based on above priority

8,400 genomes

Visually inspect the phylophlan tree

- 1. Remove genomes out of place
- Remove poor quality genomes
- 3. Removed genomes recorded in an Excel file

8,259 genomes V10.1b



Visually inspect the phylophlan tree second round

- 1. Remove genomes out of place
- 2. Remove poor quality genomes
- 3. Removed genomes recorded in an Excel file

Final genomes V10.1