

How to calculate ANI online: jSpeciesWS




(slow; but allows batches) <https://jspecies.ribohost.com/jspeciesws/>



Upload own genome (min 0.02MB
- max. 15MB)

Genome as (multi)-FASTA.

 Upload ZIP archive (New!)

 Select file

File WHOZ uploaded successfully at
2,105.63 kilobit per second

Choose genome from
GenomesDB 

Neisseria gonorrhoeae e03.04

ANId (Goris et al. IJSEM 2007)

Pieces of 1020 nt of query genome

BLASTN against reference

Take all hits > 30% identity over >70% length

Compute mean identity

ANIm:

based on MUMmer (Kurtz et al., Genome Biol. 2004)

Much faster

Comparison of own genomes and/or reference genomes

Running...



Genomes included (2/30)

Pairwise comparisons ?

Tetra correlation search ?

⚙️ Calculation in progress, click for status!

📊 Start ANIb

📊 Start ANIm

📊 Start Tetra

📋 Start TCS

Genome	Size	Contigs	GC [%]	N	Source	
WHOZ	2,229,351	1	52.4	0	Upload	✖
Neisseria gonorrhoeae e03.04	2,151,002	120	52.46	0	Public	✖

🛒 Genome Cart

📊 ANIb Result

📊 ANIm Result

📊 Tetra Result

📋 TCS Result

ANIb Matrix

[ANIb Result by Genome](#)

Show ANIb and [aligned nucleotides] [%] ▾

📄 Download as .csv

Legend:

Above cutoff (> 95%)

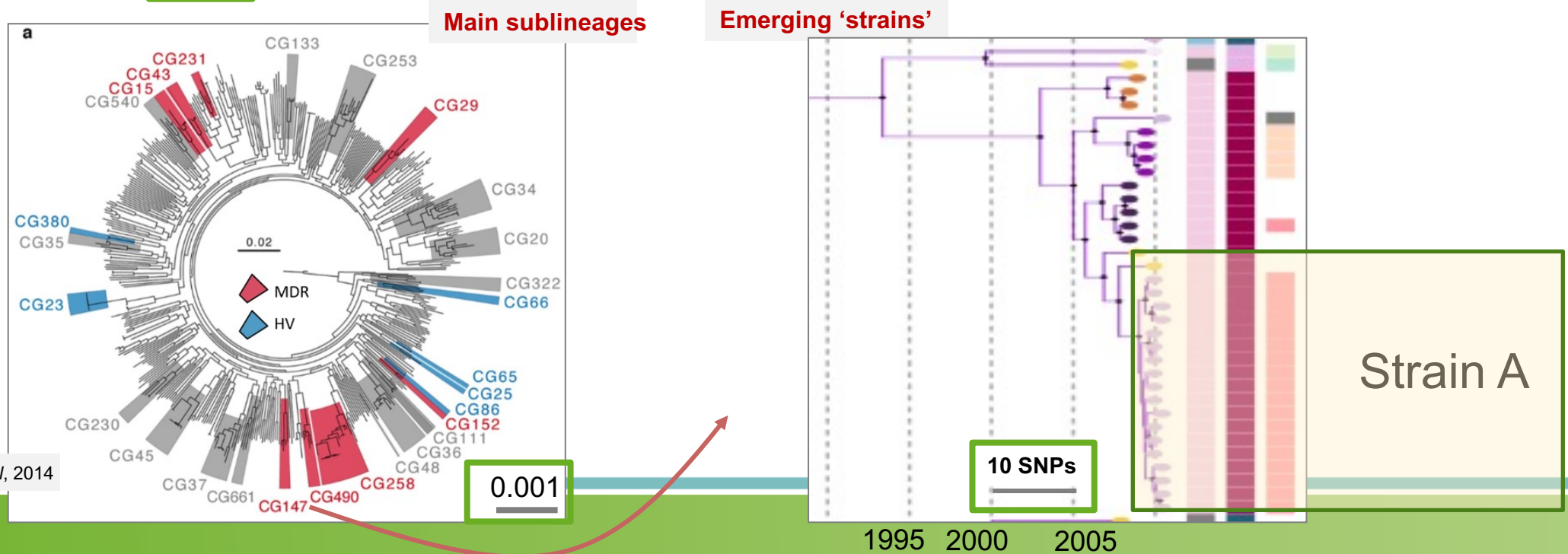
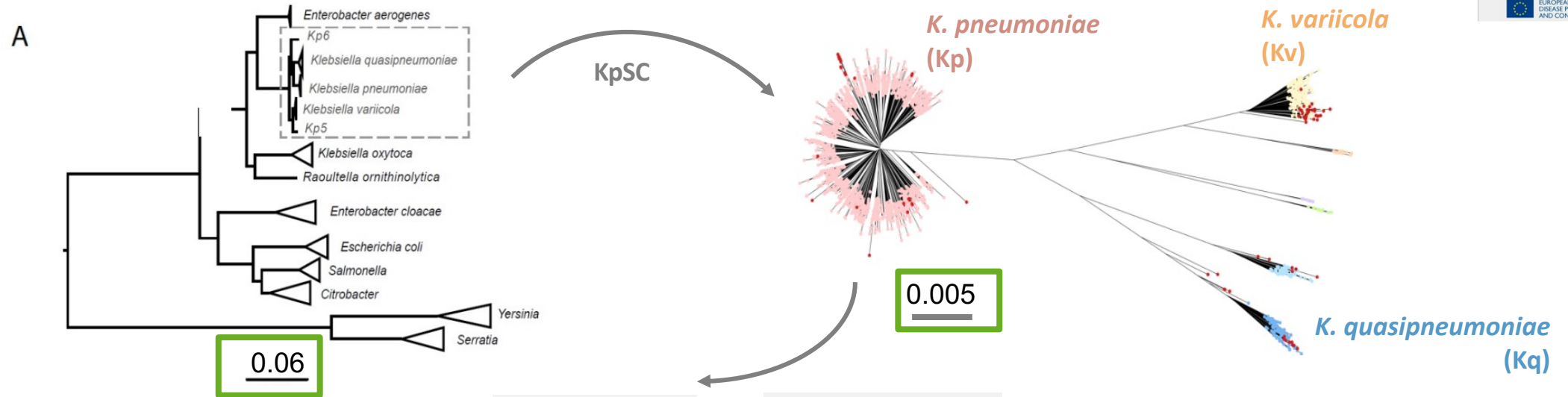
Below cutoff (< 95%)

Suspicious alignment!

	WHOZ	WHOA
WHOZ	*	99.26 (95.49)
WHOA	99.20 (95.75)	*

How distinct is *Escherichia coli* from *Salmonella enterica*?

The multiple levels of phylogenetic structure



Holt et al, 2014

Mind the scale!