

Lecture – Introduction to Nextclade for Lineage Assignment and QC

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Nextclade Demonstration

- Download your sequences from Galaxy
- Loading consensus sequences into Nextclade
- Selecting datasets
- Interpreting results
- Exporting results

Nextclade Practice

Use your own data to answer these questions:

1. What is the clade/lineage of each sample?
2. Suspected country of origin?
3. Check each samples QC metrics, which would you use for:
 - Clade/Lineage calling?
 - Phylogenetic analysis?
 - Speciation?
4. Check for odd genomic features (premature stop, gaps, etc).
5. Which samples would you pass/fail?

Questions? + Resources

- Nextclade website: <https://clades.nextstrain.org>
- Documentation:
<https://docs.nextstrain.org/projects/nextclade>
- Nextclade is also a CLI tool and is available in Galaxy.
 - <https://docs.nextstrain.org/projects/nextclade/en/stable/user/nextclade-cli/index.html>
 - The web interface is excellent, provides all the features of the CLI and even more.
- CZID Consensus QC help page:
<https://chan Zuckerbergberg.zendesk.com/hc/en-us/articles/13619776085780-Consensus-Genome-Quality-Checks>