

Please register for an account on PubMLST.org

- <https://pubmlst.org/site-accounts>



- You will also need to register for the
Campylobacter jejuni/coli database:

<https://pubmlst.org/organisms/campylobacter-jejunicoli>



Worked example 1 (1)

Oxfordshire Human Surveillance Project

- Go to <https://PubMLST.org> & log in: choose 'My Account'.
- Choose ORGANISMS, *Campylobacter jejuni/coli*
(<https://pubmlst.org/organisms/campylobacter-jejunicoli>)
- Choose isolate collection, view and explore dashboard.
- Choose PROJECTS, Public projects
- Click on '1, Oxfordshire Human Surveillance, Dashboard'
– explore the data – what do they tell you?



Worked Example 1 (2)

Inspecting isolate data

- Choose SEARCH, Search database
 - a project is already chosen
- Click on SEARCH,
 - this gives you all the Oxfordshire isolates
- Scroll down to the isolate records, click on id 5858
 - Isolate OXC1
- Inspect the data
 - How good are they?
 - What do they tell you?



Worked Example 1 (3)

Sub-setting the data

- Go back to the isolate collection,
 - you can use the browser 'back' button.
- Under 'Isolate provenance/primary metadata fields', choose 'year' type '2011' in the box click on SEARCH,
 - you now have a subset of the data,
 - review the data.
- Scroll to the bottom of the webpage,
 - under 'Third Party:' click on 'GrapeTree'.



Worked Example 1 (4)

GrapeTree

- On the GrapeTree web page:
 - under 'Recommended schemes' choose 'C. jejuni / C. coli cgMLST v2';
 - under 'Include Fields' choose 'month', sex, 'ST (MLST)' and 'clonal complex (MLST)';
 - click on SUBMIT (you will have to wait) ...
- Click on 'Launch Grape Tree':
 - under 'Rendering' choose 'Dynamic'
 - under 'Tree Layout': set 'Node Size %' to '150', you can colour the nodes by the provenance and phenotype data chosen above.

Worked Example 2

Outbreak associated with milk

Data from: Fernandes, A. M., Balasegaram, S., Willis, C., Wimalarathna, H. M., Maiden, M. C., and McCarthy, N. D. (2015) Partial failure of milk pasteurization as a risk for the transmission of *Campylobacter* from cattle to humans. *Clinical Infectious Diseases* **61, 903-909**



- Go to the PubMLST *Campylobacter jejuni/coli* search page.
 - Click on ‘Modify form’, choose ‘Filters’
- In the ‘Publication’ box select ‘Fernandes et al. 2015 Clin Infect Dis 601: 903-9’ click on SEARCH
 - Review Data Quality
- Run GrapeTree with ‘*C. jejuni* / *C. coli* cgMLST v2’
 - ensure you check ‘Region’ and ‘fluoroquinolone genotypes 2’ under ‘Include Fields’



Worked Example 3

Outbreak associated with water

- **Data from: Gilpin, B. J., Walker, T., Paine, *et al.* & Jones, N. (2020). A large scale waterborne campylobacteriosis outbreak, Havelock North, New Zealand. *J Infect.* **81**, 390-395.**
- Go to the PubMLST *Campylobacter jejuni/coli* search page.
 - Click on 'Modify form' choose 'Filters'
- In the 'Publication' box select 'Gilpin et al. 2020 J Infect Dis 81: 390-395' click on SEARCH
 - check data quality
- Run GrapeTree with 'C. jejuni / C. coli cgMLST v2'
 - Under 'Include Fields' ensure you include 'region', 'age yr', 'sex', 'disease', 'source', along with 'ST (MLST)' and 'clonal complex MLST'

