

What we learned today

- Goal** • BLAST: searching with sequences to identify my pathogen
- Goal** • NCBI RefSeq Project: curated reference genomes with sequence (assembly) and annotation data for my pathogen
- Goal** • NCBI Taxonomy: finding data for my pathogen, including links to experimental study datasets
- Goal** • NCBI Datasets: A new resource to help quickly find and download genome & gene datasets *and adding more pages to serve as the source for genome & assembly info.*
- Goal** • Pathogen Detection Project: providing new sources of data, tools and curated information about microbial pathogens – especially for those involved in foodborne illnesses.
- Goal** • NCBI Virus: accessing, downloading and viewing key virus information
- Plus, *you have access to references for other applications for next steps!*

For more advanced work:

I want to	Tools to use
Annotate my bacterial or viral genome sequence	PGAP or VADR
Assemble and annotate my bacterial genome from Illumina ngs reads	RAPT
Find bacterial sequence with known antimicrobial resistance data	Biosample Antibigrams → link to SRA or Assembly
Evaluate anti microbial resistance in my isolate’s sequence	AMRFinderPlus
Search for antimicrobial resistance in Pathogen Project isolates	Pathogen Detection Project’s MicroBIGG-E Browser
Find related bacterial pathogens based on metadata	Pathogen Detection Project’s Isolates Browser
Identify my pathogen based on its DNA sequence	BLASTn with key database
Determine the taxonomic composition of my metagenomic sequence file	STAT