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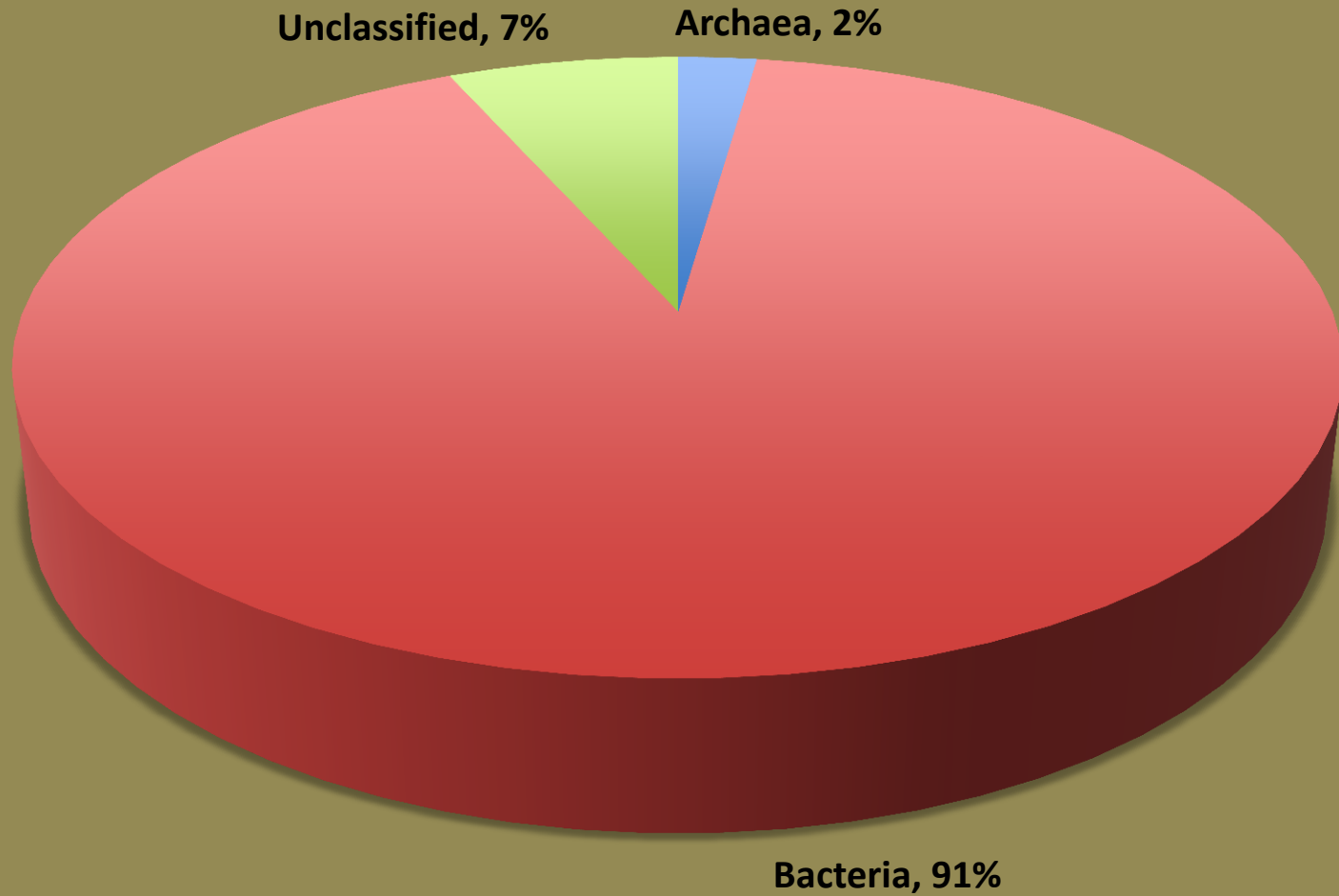






- Methods
 - DNA Extraction using MoBio Powersoil Kit
 - Illumina Prep
 - HiSeq Sequencing
 - MetaPhlAn for preliminary analysis
- 124 taxa, 33 species found
 - 18 new species not seen on the subway
- Additional collections in winter 2014 and spring 2015

Taxa Breakdown



Potential Pathogens

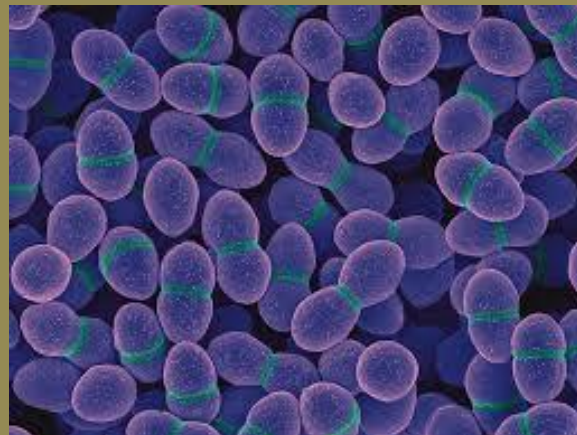
Species Breakdown (COGEM)	# Species
Opportunistic	2
Non Opportunistic Pathogens	2
Non Pathogens	11
Unknown	18
Total	33



Pseudomonas putidas



Escherichia coli

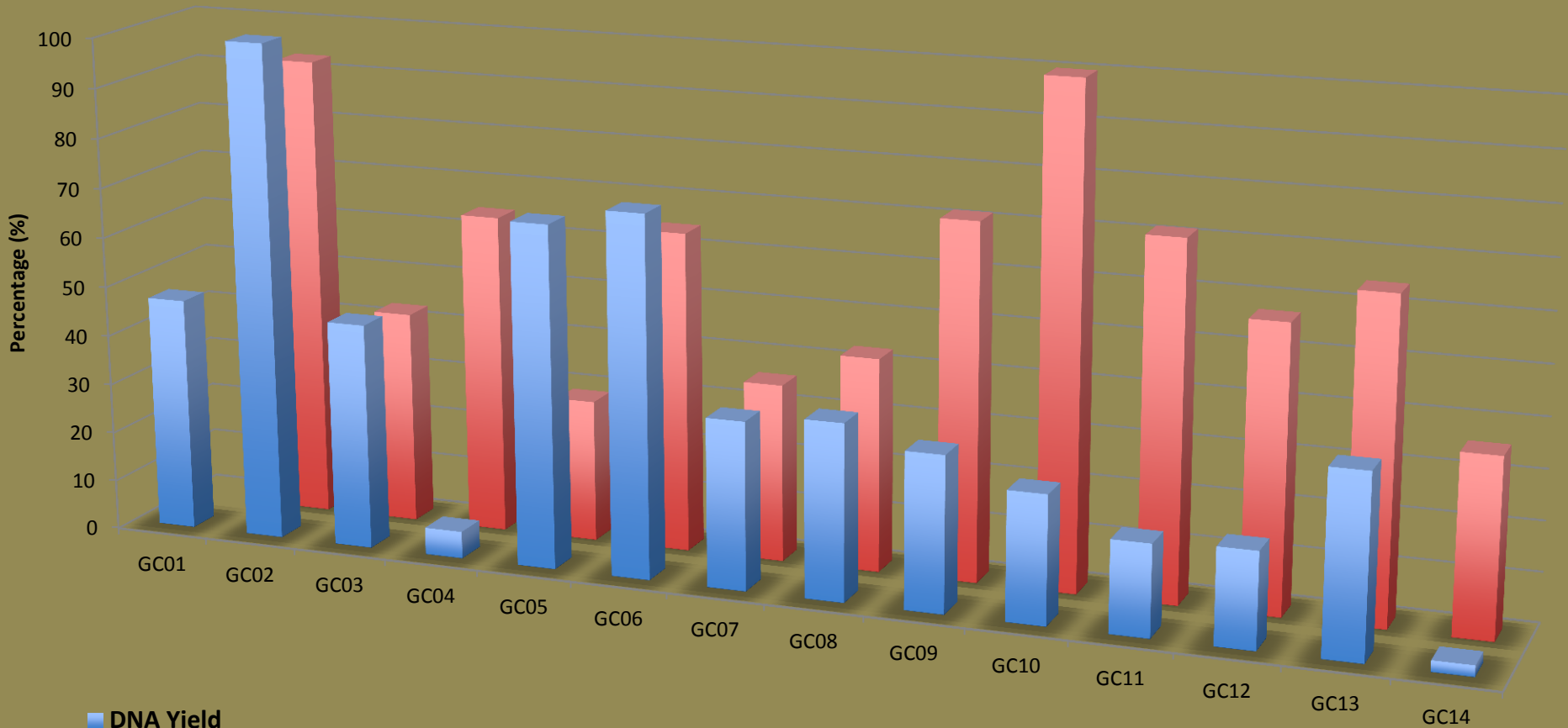


Enterococcus faecalis

Propionibacterium acnes



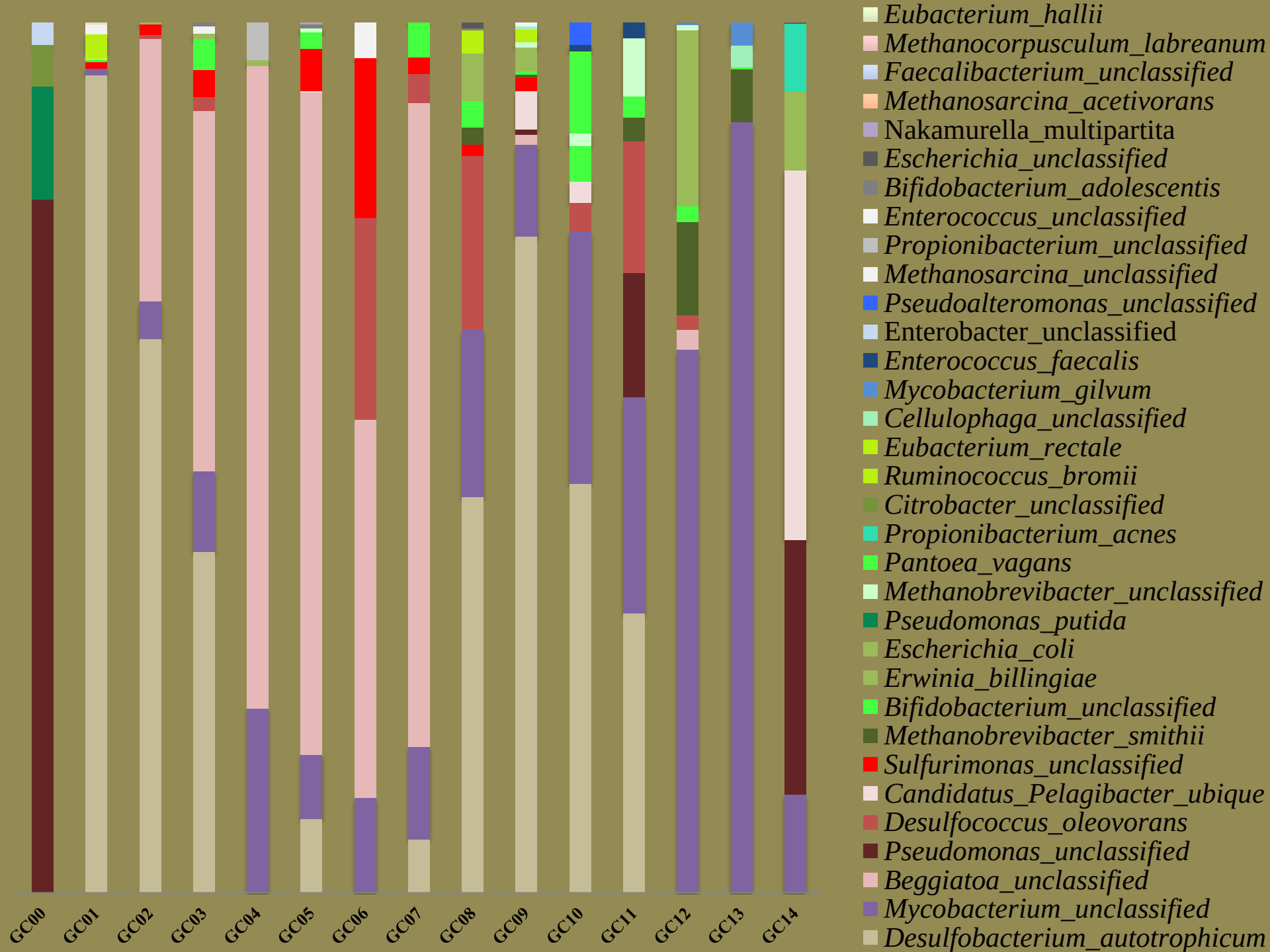
DNA Yield and Species Diversity



■ DNA Yield

■ Number of Species

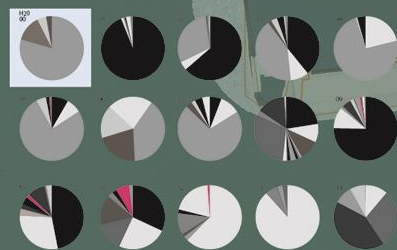
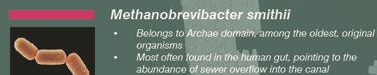
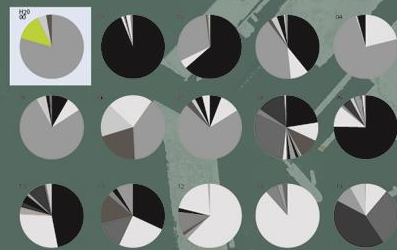
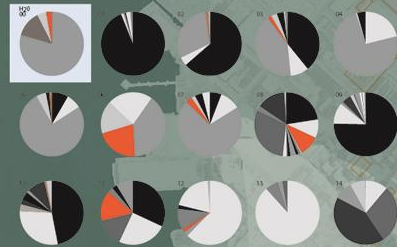
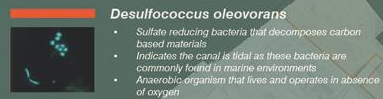
Contamination Level	AVG DNA Yield	AVG Species
Medium	51.23	8.20
High	29.40	8.11



ENQUÊTE GOWANUS

Analyzing the Microbiome of a Superfund

Microorganisms of Interest



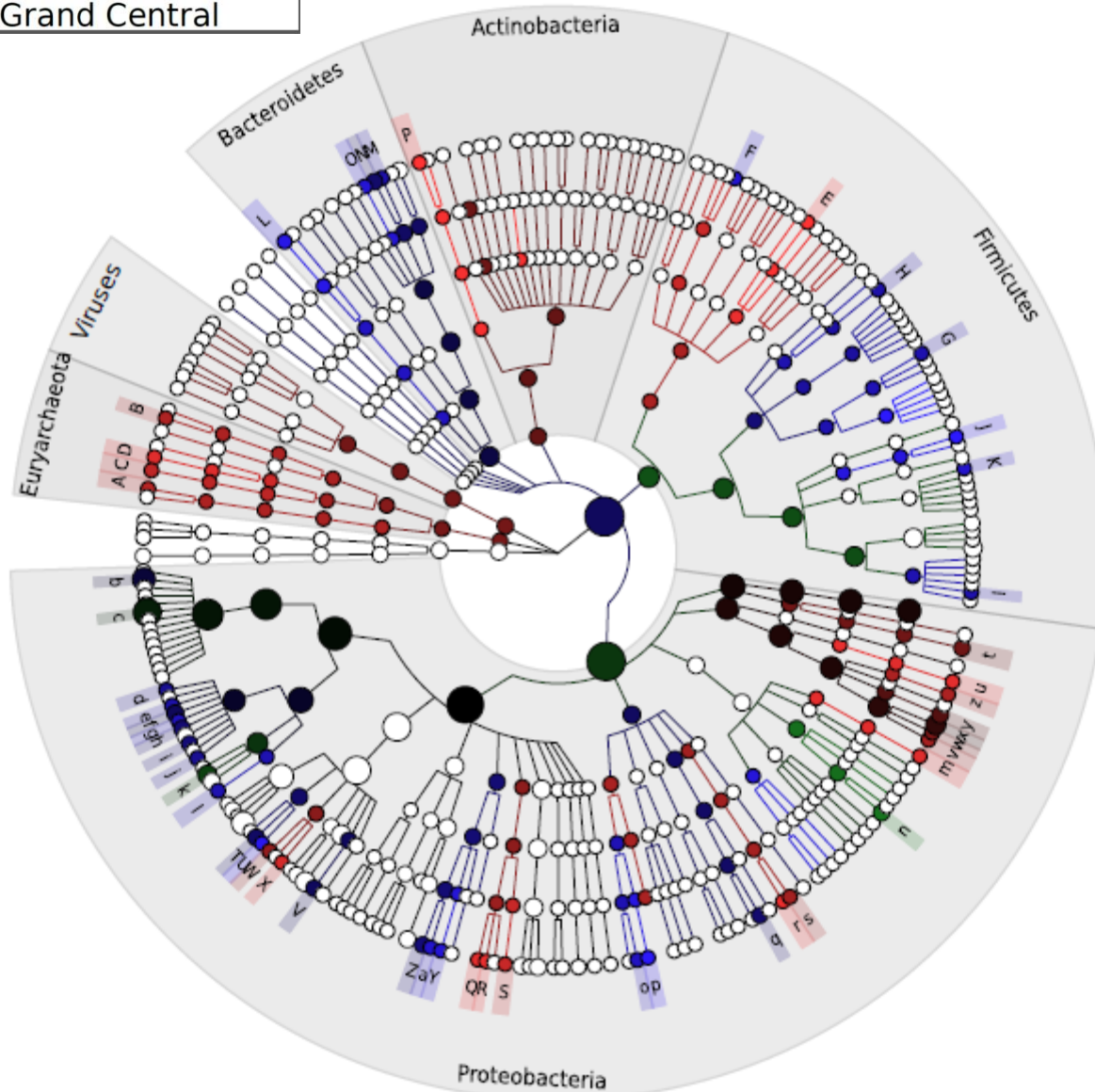
Well Cornell Medical College

GENSPACE

GOWANUS Canal
CONSERVANCY

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- Abandoned Station
- Gowanus Canal
- Grand Central



- A: *Methanobrevibacter smithii*
- B: *Methanoplanus* unclassified
- C: *Methanosaeta* unclassified
- D: *Methanosarcina* unclassified
- E: *Subdoligranulum* unclassified
- F: *Clostridium bifermentans*
- G: *Weissella confusa*
- H: *Lactococcus lactis*
- I: *Bacillus cereus thuringiensis*
- J: *Exiguobacterium* unclassified
- K: *Staphylococcus epidermidis*
- L: *Sphingobacterium* unclassified
- M: *Chryseobacterium gleum*
- N: *Chryseobacterium* unclassified
- O: *Riemerella* unclassified
- P: *Bifidobacterium adolescentis*
- Q: *Cycloclasticus pugetii*
- R: *Cycloclasticus zancles*
- S: *Thiomicrospira* unclassified
- T: *Klebsiella pneumoniae*
- U: *Klebsiella* unclassified
- V: *Enterobacter cloacae*
- W: *Escherichia* unclassified
- X: *Escherichia coli*
- Y: *Pseudoxanthomonas* unclassified
- Z: *Stenotrophomonas maltophilia*
- a: *Stenotrophomonas* unclassified
- b: *Pseudomonas stutzeri*
- c: *Pseudomonas* unclassified
- d: *Acinetobacter baumannii*
- e: *Acinetobacter lwoffii*
- f: *Acinetobacter pittii calcoaceticus nosocomialis*
- g: *Acinetobacter schindleri*
- h: *Acinetobacter* unclassified
- i: *Acinetobacter ursingii*
- j: *Acinetobacter radioresistens*
- k: *Psychrobacter cryohalolentis*
- l: *Enhydrobacter aerosaccus*
- m: *Thiomonas* unclassified
- n: *Massilia* unclassified
- o: *Agrobacterium* unclassified
- p: *Rhizobium lupini*
- q: *Brevundimonas diminuta*
- r: *Candidatus Pelagibacter* unclassified
- s: *Candidatus Pelagibacter ubique*
- t: *Sulfurimonas* unclassified
- u: *Desulfocapsa sulfexigens*
- v: *Desulfobacter curvatus*
- w: *Desulfobacter postgatei*
- x: *Desulfobacter* unclassified
- y: *Desulfobacterium autotrophicum*
- z: *Desulfococcus oleovorans*

Cornell Team

Sequencing

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and a host of others...