Outline

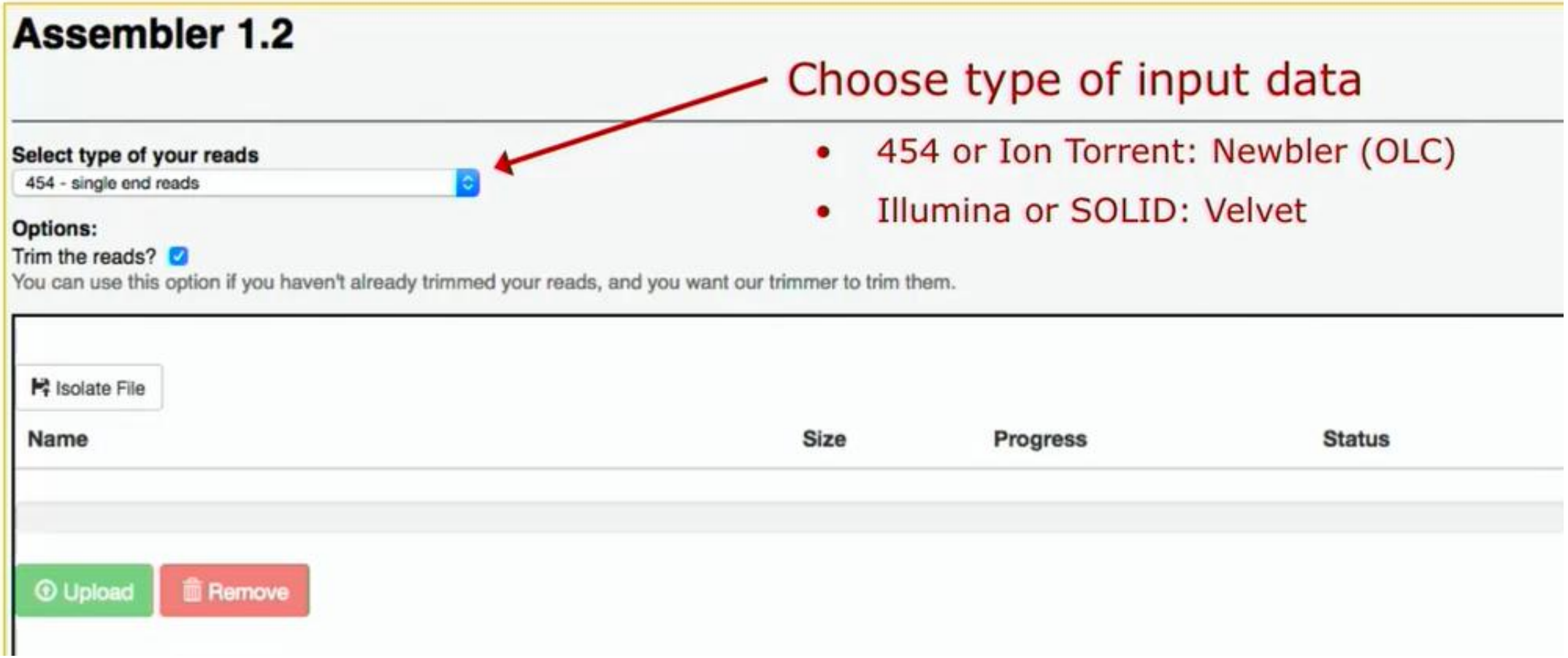
- What is *de novo* assembly?
- CGE Assembler web-tool
- Handling the output

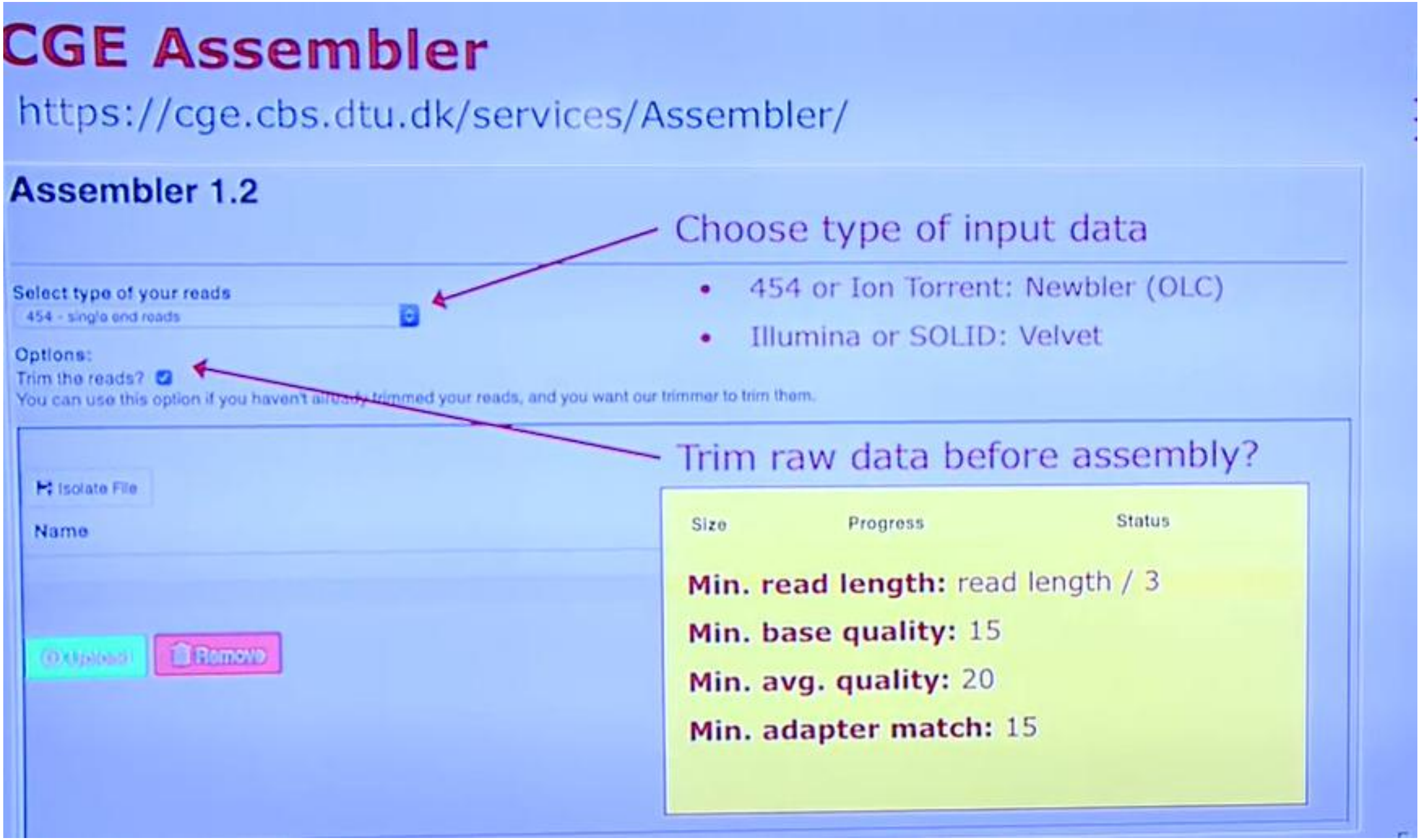
What is *de novo* assembly?

- It is not reference based...
- CGE Assembler
  - Velvet: De Bruijn Graph
  - Newbler: Overlap Layout Consensus (OLC)
- Remember: Assemblers are far from perfect!

CGE Assembler

https://cge.cbs.dtu.dk/services/Assembler/




CGE Assembler
https://cge.cbs.dtu.dk/services/Assembler/
Assembler 1.2
Choose type of input data
Select type of your reads
454 - single end reads
454 or Ion Torrent: Newbler (OLC)
Illumina or SOLID: Velvet
Options:
Trim the reads?
You can use this option if you haven't already trimmed your reads, and you want our trimmer to trim them.
Trim raw data before assembly?
Isolate File
Name
Size
Progress
Status
Min. read length: read length / 3
Min. base quality: 15
Min. avg. quality: 20
Min. adapter match: 15
Remove

Output

Assembler-1.0 Server - Results

Input Files: *Styph-0808F31478_3_1_sequence.txt Styph-0808F31478_3_2_sequence.txt*

CONTIGS INFO
Technology: *Illumina Paired Ends Reads*
N50: *201079*

DOWNLOAD CONTIGS

Final note

- Most CGE tools are assembly based
- All assembly based tools use the CGE Assembler
- Optimize your jobs: Do one assembly

Bacterial analysis pipeline:
https://cge.cbs.dtu.dk/services/cge/