

Docker : a blast example

Get a blast image

```
docker pull simonalpha/ncbi-blast-docker
```

Create a working dir

```
mkdir blast_test && cd blast_test/
```

Get data

```
curl -o sequences_C0I.fasta  
https://data-access.cesgo.org/index.php/s/KdY6BCuClKtvfBX/download  
curl -o Danio_rerio_genes_Zv9.fasta  
https://data-access.cesgo.org/index.php/s/1PRhWEtSK9v9wHD/download
```

First test with makeblastdb

```
docker run simonalpha/ncbi-blast-docker makeblastdb -in  
Danio_rerio_genes_Zv9.fasta -parse_seqids -dbtype nucl -out blastdb/zv9 -  
title "Zv9"
```

Failed because data are not in container, need to mount volume

Mount volume (working dir -> /data in container)

Use the option -v : -v \$(pwd):/data/

Run makeblastdb

```
docker run -v $(pwd):/data/ simonalpha/ncbi-blast-docker makeblastdb -  
in /data/Danio_rerio_genes_Zv9.fasta -parse_seqids -dbtype nucl -out  
/data/blastdb/zv9 -title "Zv9"
```

A blastdb directory with results is created in your working dir

Run blastn

```
docker run -v $(pwd):/data simonalpha/ncbi-blast-docker blastn -  
query /data/sequences_C0I.fasta -task megablast -db /data/blastdb/zv9 -outfmt  
7 -out /data/megablast.out
```

The result is in your working dir