Centrifuge Report of Normal vs Dermatitis Skin Microbiome

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Abstract

Centrifuge is a classification software used on whole genome shotgun (WGS) reads. It uses a reference database to determine what organisms are found in your sample. This protocol will show you how to access the data on CyVerse and walk you through some questions to help in the analysis of the plots.

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Protocol

Access data on CyVerse
Step 1.

Log into your account on the CyVerse Discovery Environment (click link below).

LINK:
https://de.cyverse.org/de/

Access data on CyVerse
Step 2.

Click on the data icon found on the left hand side of the Discovery Environment.

Access data on CyVerse
Step 3.

Click on "Community Data" > "imicrobe" > "outreach"

Access data on CyVerse
Step 4.

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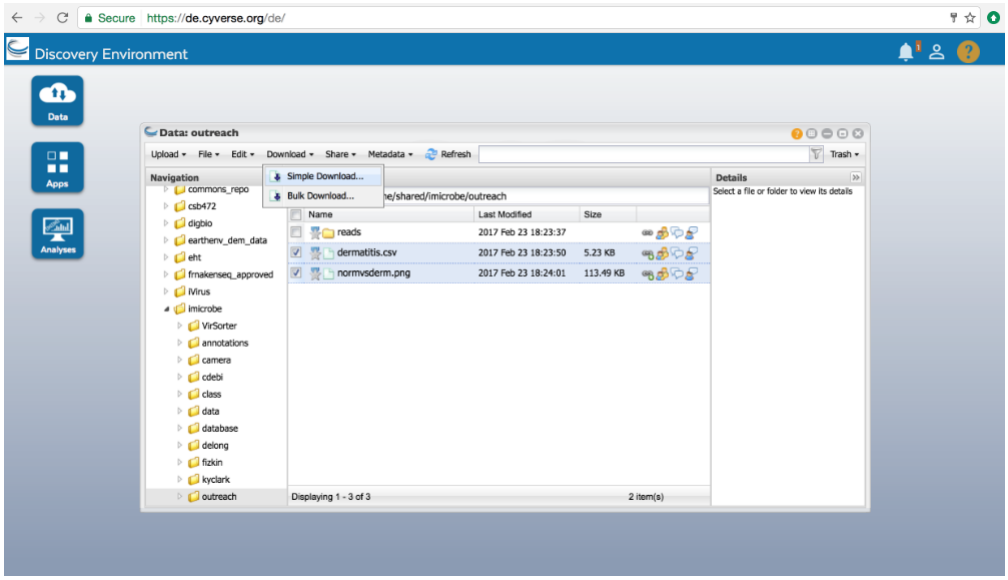
There are two files you need to download, normvsderm.png and dermatitis.csv. Check mark both those files and click Download in the menu. Click "Simple Download"

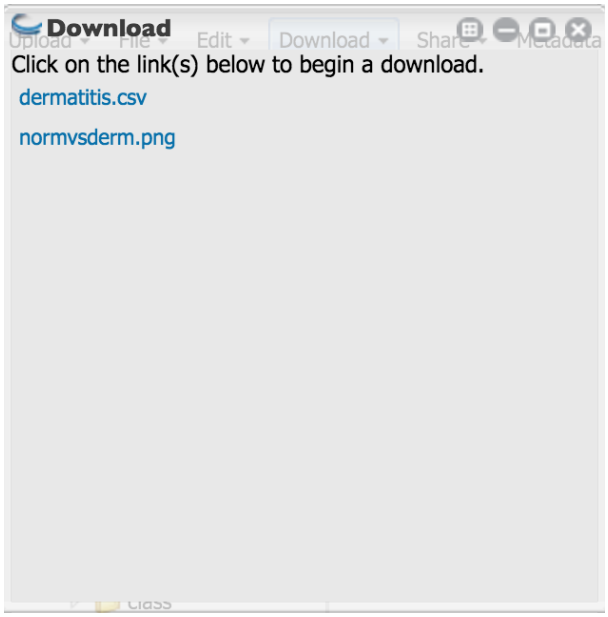


(Clicking will enlarge image)

Access data on CyVerse

Step 5.

A new box will open with two links. Click both those links to download the files.



Analyze normvsderm.p

Step 6.

normvsderm.png is a bubble plot of proportions of organisms found in the samples. There are a total

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of 6 samples, 3 had dermatitis (red) and 3 were normal (blue). The size of the dot indicates the proportion of the classified data that matched to that organism with larger dots meaning a higher proportion and smaller ones a lower proportion.

Analyze normvsderm.png

Step 7.

Do you see any patterns? Are there any organisms that appear in all of the samples? Do any of the samples have unique organisms?

Analyze normvsderm.png

Step 8.

Are there any patterns between the Dermatitis and Normal samples?

Look at dermatitis.csv

Step 9.

dermatitis.csv is the data used to generate the plot.

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