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# Laboratory Journal

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# Week of 26 February 2018

## 1 Identifying Virulence Factors in Phages

Downloaded phage protein data searching by taxonomy from Uniprot/TrEmBL. Downloaded three datasets Claudioviruses, Ligamenvirales, and Unclassified. Downloaded viral contigs from vHMM [Earth Virome Project](#).

Metagenomic gene prediction through prodigal downloaded from conda "conda install prodigal"

```
prodigal -i mVGs_sequences_v2.fna -o my_genes -a my_proteins.faa -p meta
```

The myproteins.faa file contains the translated predicted genes. This set is applied to the VF HMM and similar to the other datasets, returned no hits with hmmsearch.

Creating virulence factor blast database to blast against viral contigs. Choosing a E value threshold:

**Goals** Finish written GRAB and Abstract for NLM

```
makeblastdb -in Combined_VF.faa -dbtype prot -out Combined_VF -title "Combined_VF"
```

```
blastp -db /Users/stronglab2/blastdb/Combined_VF/Combined_VF -out results.txt  
-outfmt 6 -query phage_proteins.faa
```

---

```
## Hello World  
print(x)
```

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## 2 example2



Figure 1: Example figure.

## 3 example3

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

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# Friday, 26 March 2010

## 1 This shows a sample table

Groups	Treatment X	Treatment Y
1	0.2	0.8
2	0.17	0.7
3	0.24	0.75
4	0.68	0.3

Table 1: The effects of treatments X and Y on the four groups studied.

Table 1 shows that groups 1-3 reacted similarly to the two treatments but group 4 showed a reversed reaction.

# Saturday, 27 March 2010

## 1 Bulleted list example

This is a bulleted list:

- Item 1
- Item 2
- ... and so on

## 2 example

Suspendisse vel felis. Ut lorem lorem, interdum eu, tincidunt sit amet, laoreet vitae, arcu. Aenean faucibus pede eu ante. Praesent enim elit, rutrum at, molestie non, nonummy vel, nisl. Ut lectus eros, malesuada sit amet, fermentum eu, sodales cursus, magna. Donec eu purus. Quisque vehicula, urna sed ultricies auctor, pede lorem egestas dui, et convallis elit erat sed nulla. Donec luctus. Curabitur et nunc. Aliquam dolor odio, commodo pretium, ultricies non, pharetra in, velit. Integer arcu est, nonummy in, fermentum faucibus, egestas vel, odio.

## 3 example2

Sed commodo posuere pede. Mauris ut est. Ut quis purus. Sed ac odio. Sed vehicula hendrerit sem. Duis non odio. Morbi ut dui. Sed accumsan risus eget odio. In hac habitasse platea dictumst. Pellentesque non elit. Fusce sed justo eu urna porta tincidunt. Mauris felis odio, sollicitudin sed, volutpat a, ornare ac, erat. Morbi quis dolor. Donec pellentesque, erat ac sagittis semper, nunc dui lobortis purus, quis congue purus metus ultricies tellus. Proin et quam. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos hymenaeos. Praesent sapien turpis, fermentum vel, eleifend faucibus, vehicula eu, lacus.



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## Formulae and Media Recipes

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# Media

## Media 1

<b>Compound</b>	<b>1L</b>	<b>0.5L</b>
Compound 1	10g	5g
Compound 2	20g	10g

Table 1: Ingredients in Media 1.

# Formulae

## Formula 1 - Pythagorean theorem

$$a^2 + b^2 = c^2$$