Figure 4

Abby

03 January, 2018

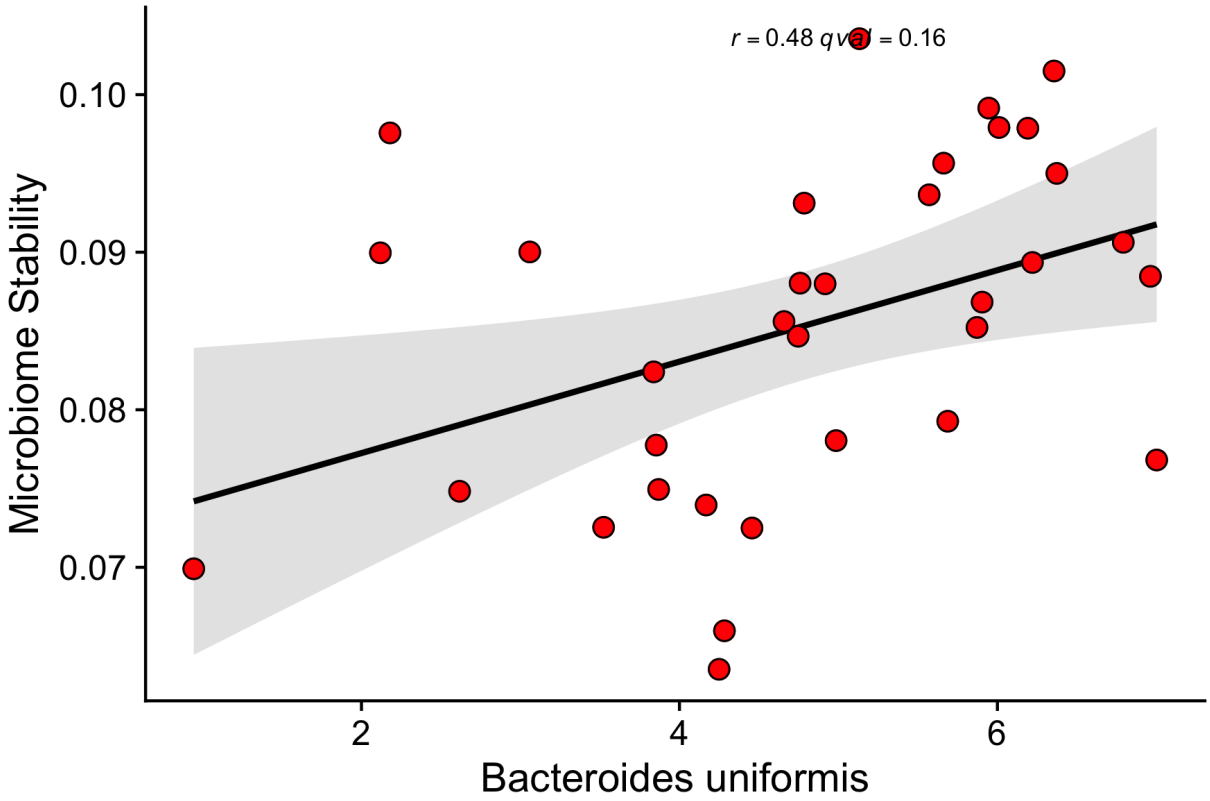
Figure 4: Will show the the correlation between dietary diversity and microbiome diversity

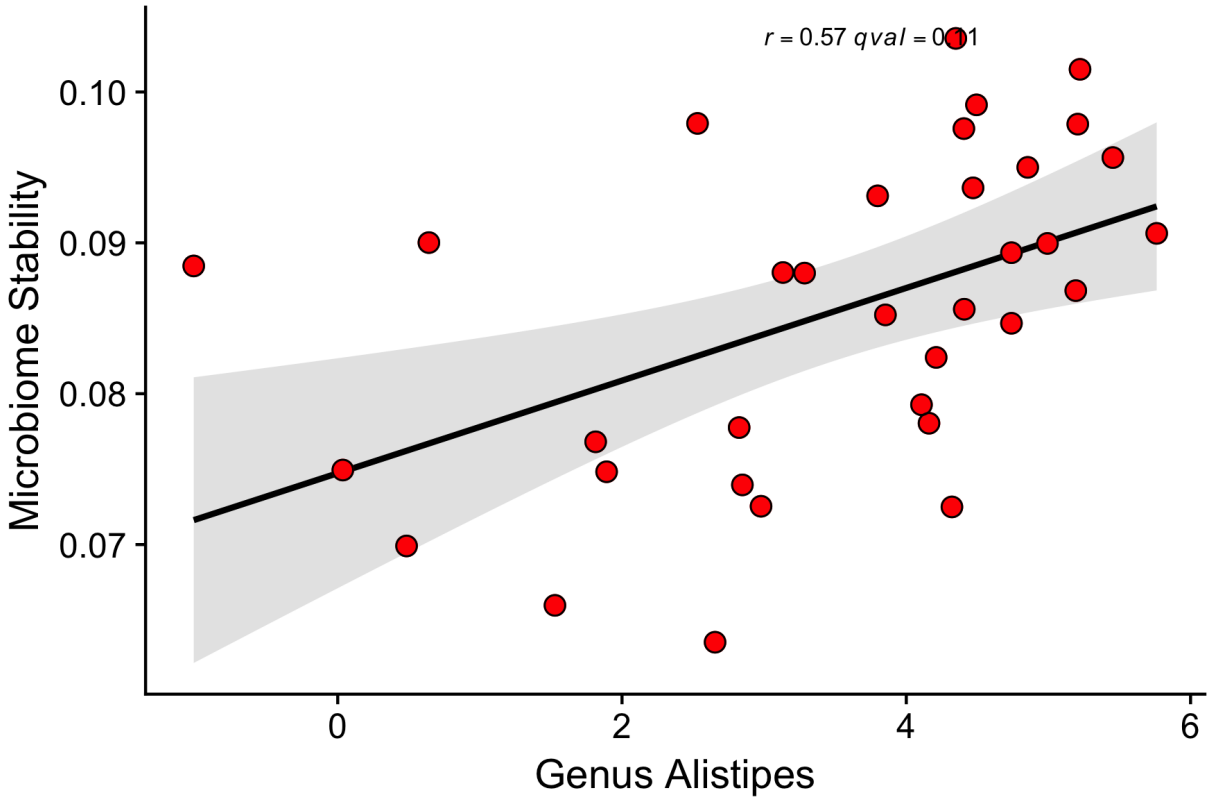
There is a significant correlation between microbiome stability and dietary alpha diversity, so make sure to show that.

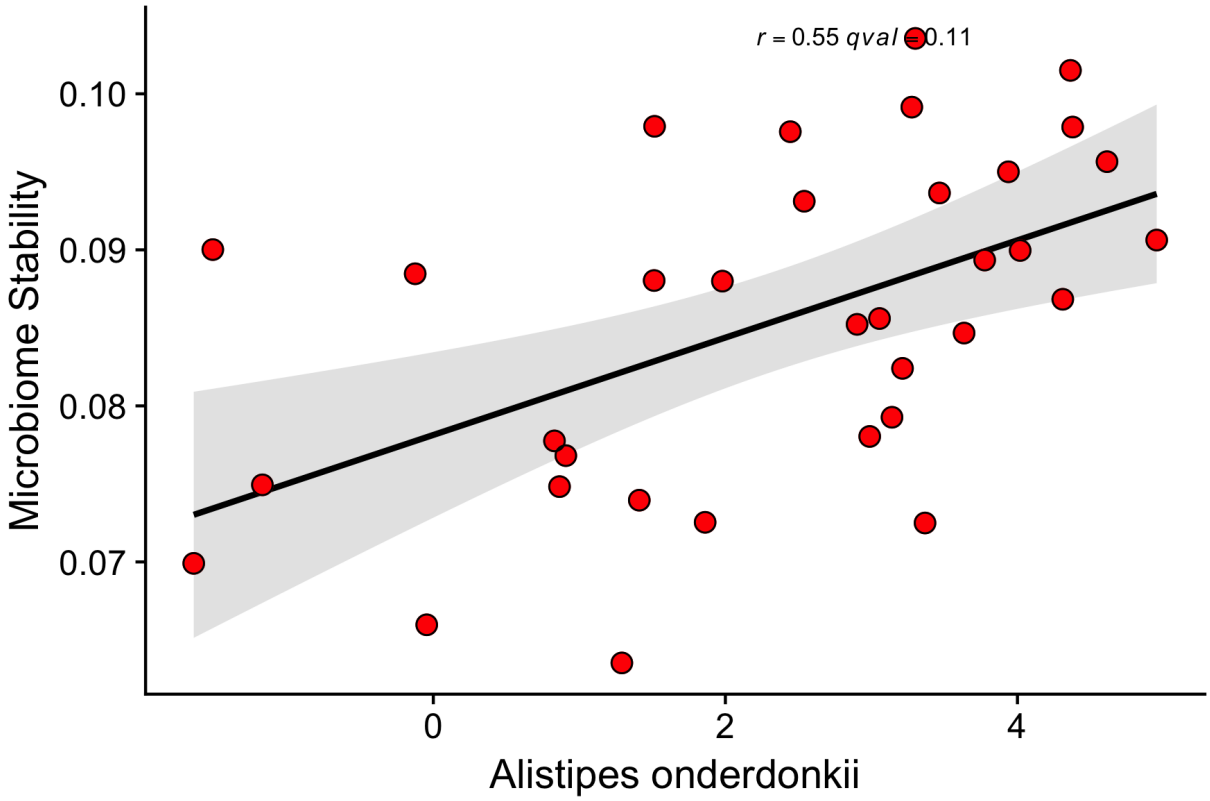
Top panel: Microbime variability v. dietary alpha diveristy and dietary beta diversity Bottom panel

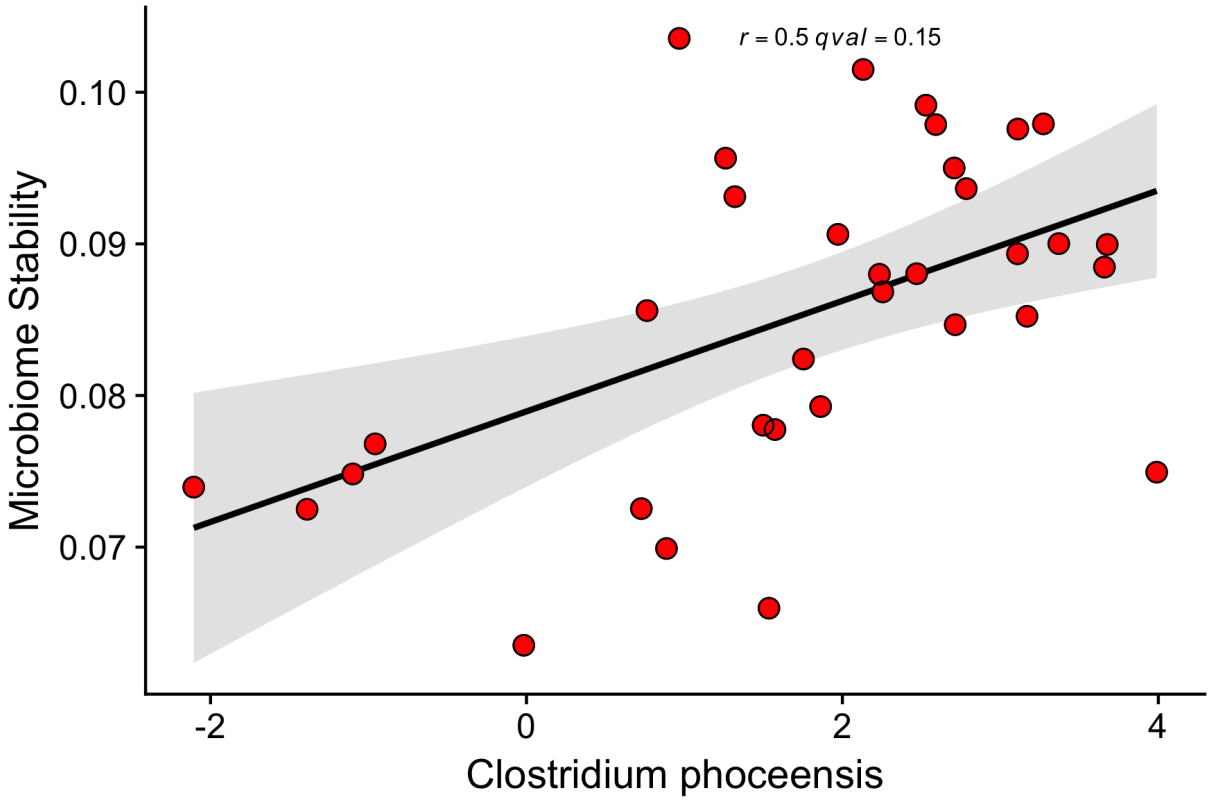
Supplemental will be whatever doesn't fit nicely on the figure. Consider individual foods microbiome stability correlations etc.

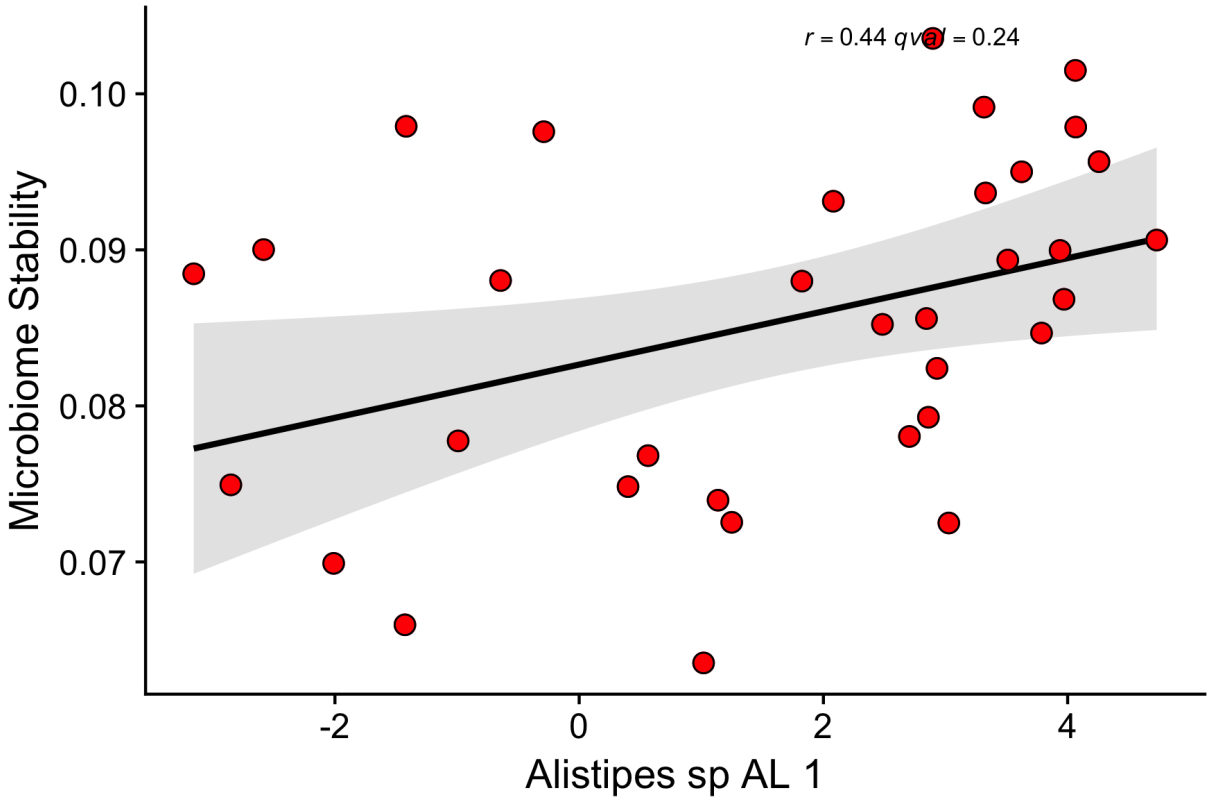
```
##                      Taxa     qvals       cors
## 1   Alistipes_onderdonkii 0.1074707  0.5480519
## 2         Genus_Alistipes 0.1074707  0.5709702
## 3        Prevotella_copri 0.1074707 -0.5315508
## 4  Dakarella_massiliensis 0.1339796 -0.5095493
## 5  Clostridium_phoceensis 0.1459436  0.4954927
## 6   Alistipes_sp_CHKCI003 0.1574795  0.4704354
## 7   Bacteroides_uniformis 0.1574795  0.4774637
## 8       Dorea_longicatena 0.1574795 -0.4692131
## 9       Alistipes_sp_AL_1 0.2372473  0.4362108
## 10    Eubacterium_eligens 0.2372473  0.4362108
```

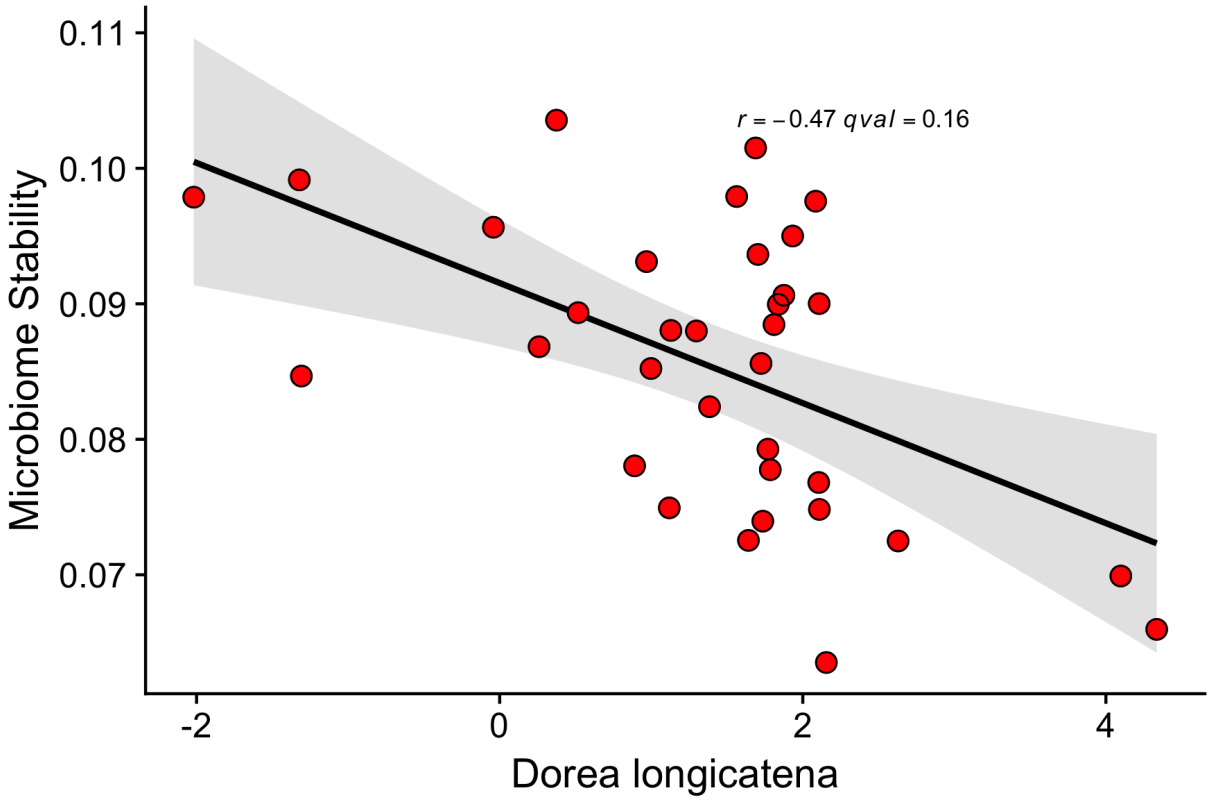


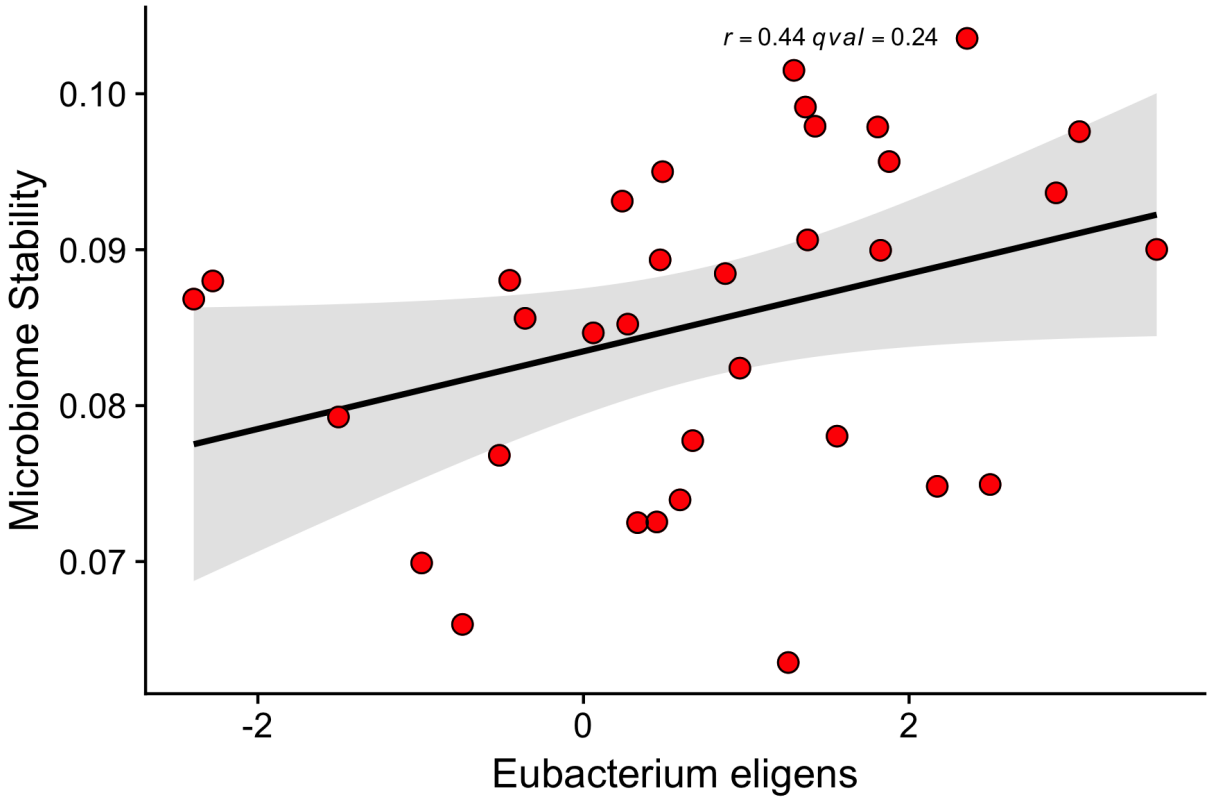

r = 0.57 qval = 0.01
Microbiome Stability
0.10
0.09
0.08
0.07
0
2
4
6
Genus Alistipes

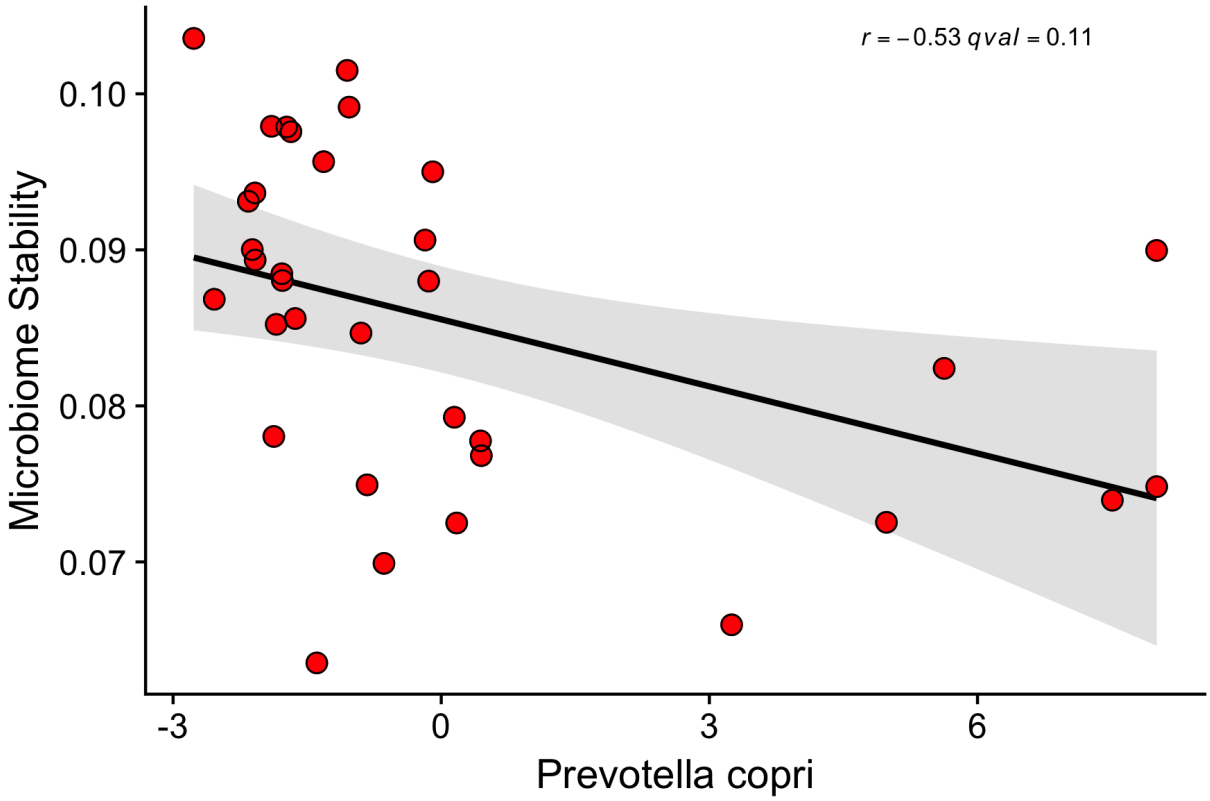

r = 0.55 qval = 0.11
Microbiome Stability
0.10
0.09
0.08
0.07
0
2
4
Alistipes onderdonkii

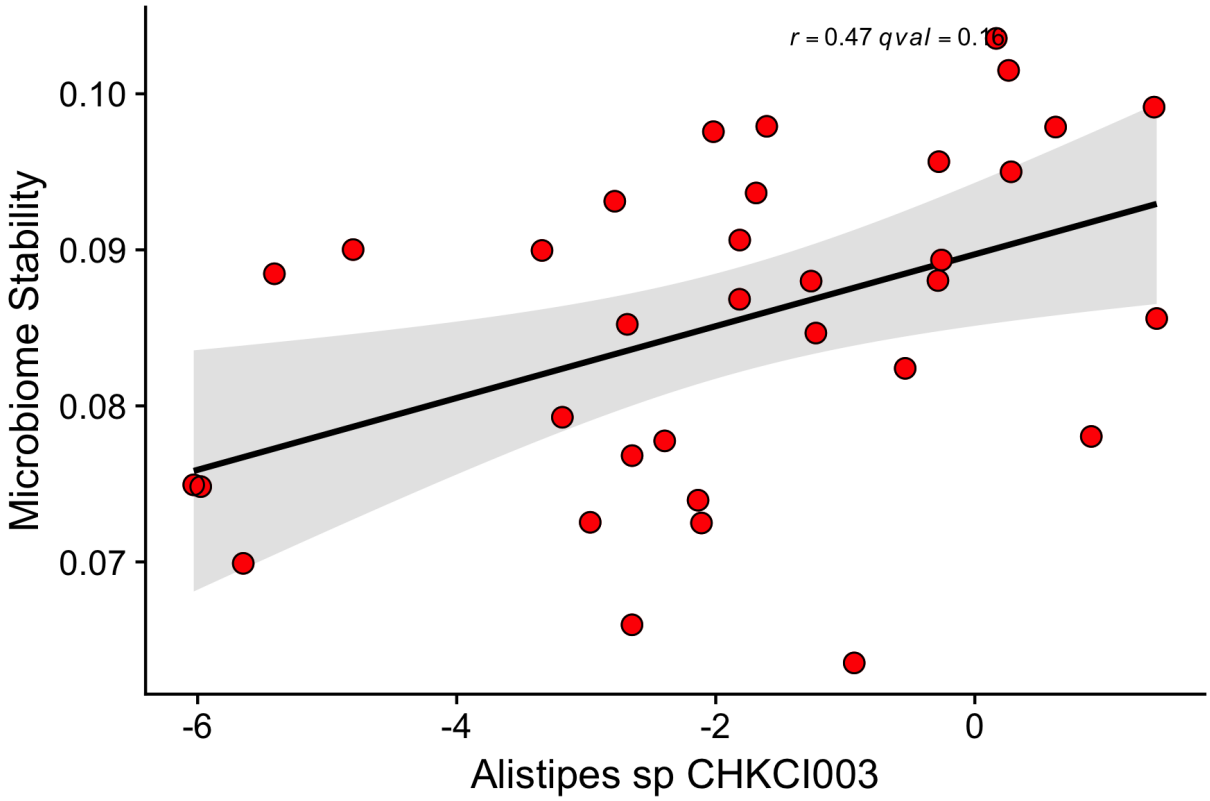

r = 0.5 qval = 0.15
Microbiome Stability
0.10
0.09
0.08
0.07
-2
0
2
4
Clostridium phoceensis

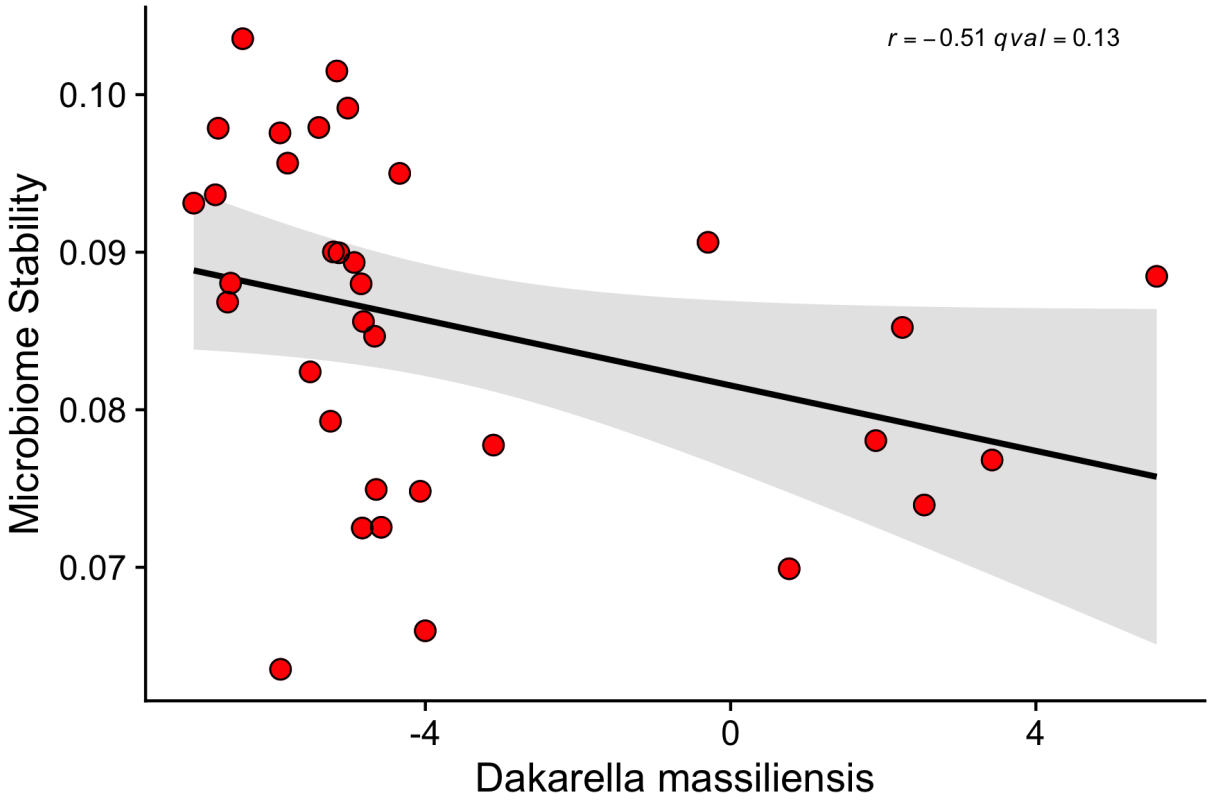

r = 0.44 qval = 0.24
Microbiome Stability
0.10
0.09
0.08
0.07
-2
0
2
4
Alistipes sp AL 1

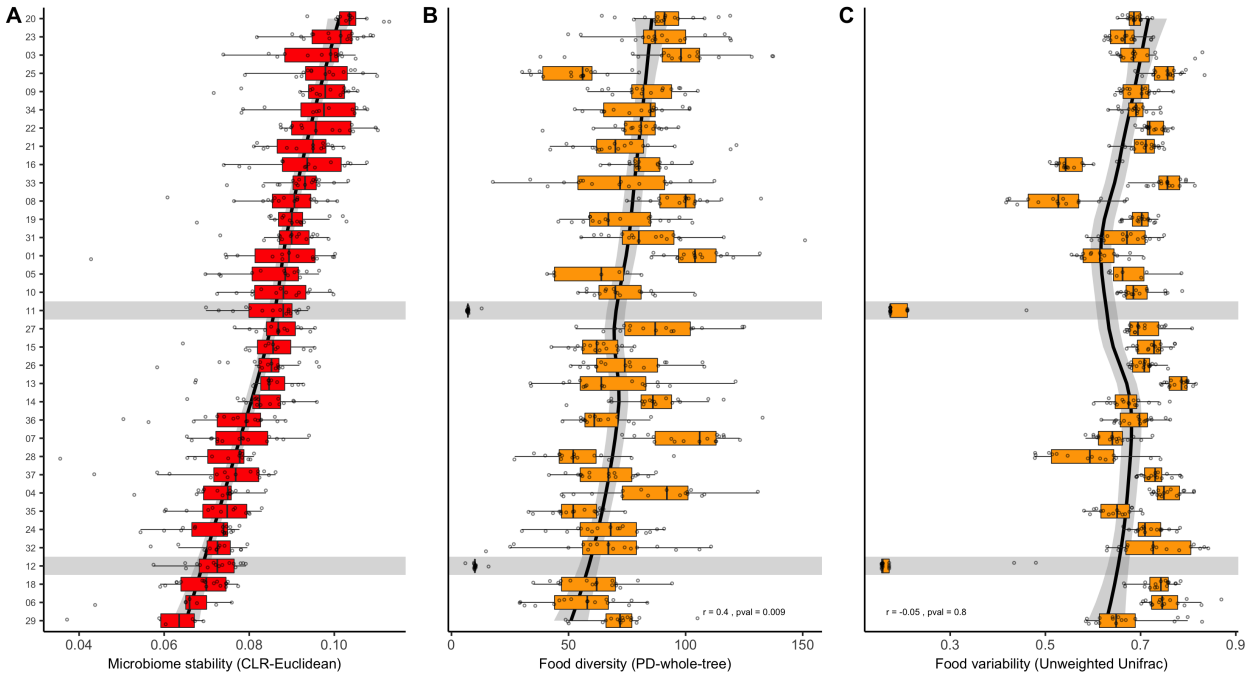

r = −0.47 qval = 0.16
Microbiome Stability
0.11
0.10
0.09
0.08
0.07
-2
0
2
4
Dorea longicatena


r = 0.44 qval = 0.24
Microbiome Stability
0.10
0.09
0.08
0.07
-2
0
2
Eubacterium eligens


r = −0.53 qval = 0.11
Microbiome Stability
0.10
0.09
0.08
0.07
-3
0
3
6
Prevotella copri

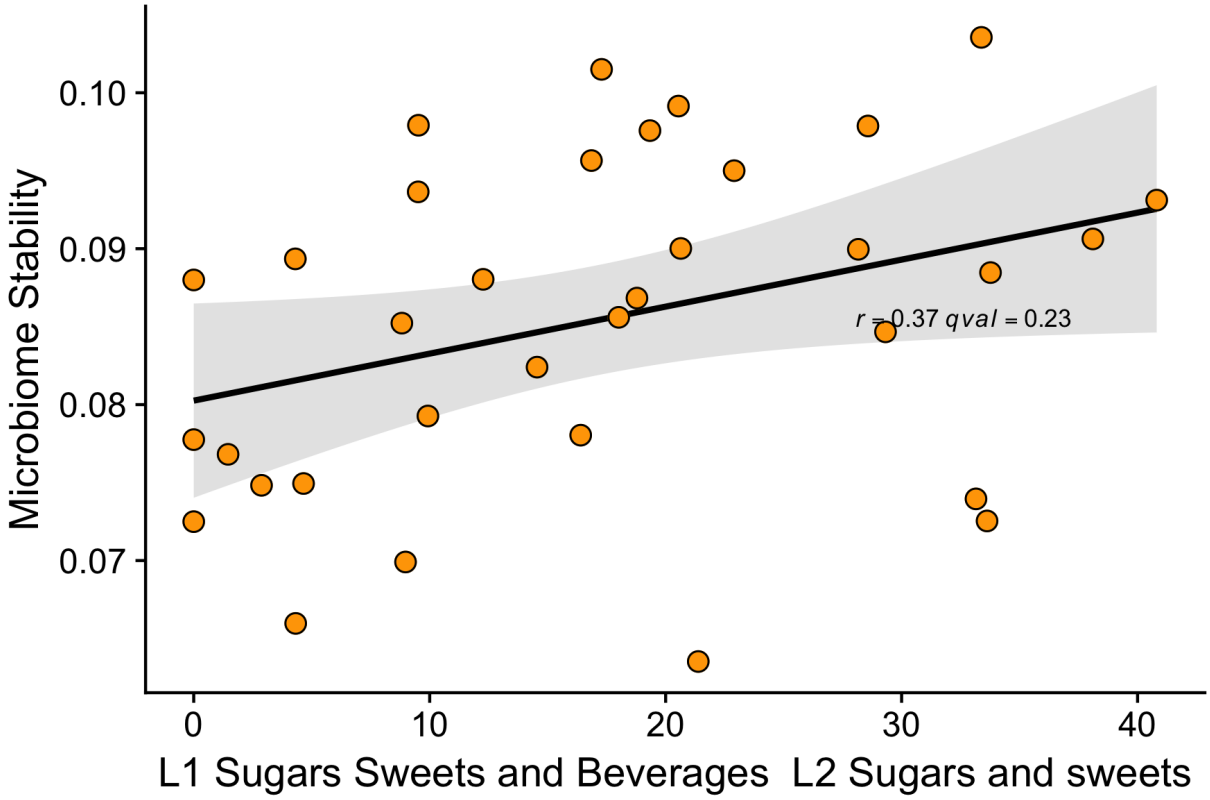

r = 0.47 qval = 0.16
Microbiome Stability
0.10
0.09
0.08
0.07
-6
-4
-2
0
Alistipes sp CHKCI003

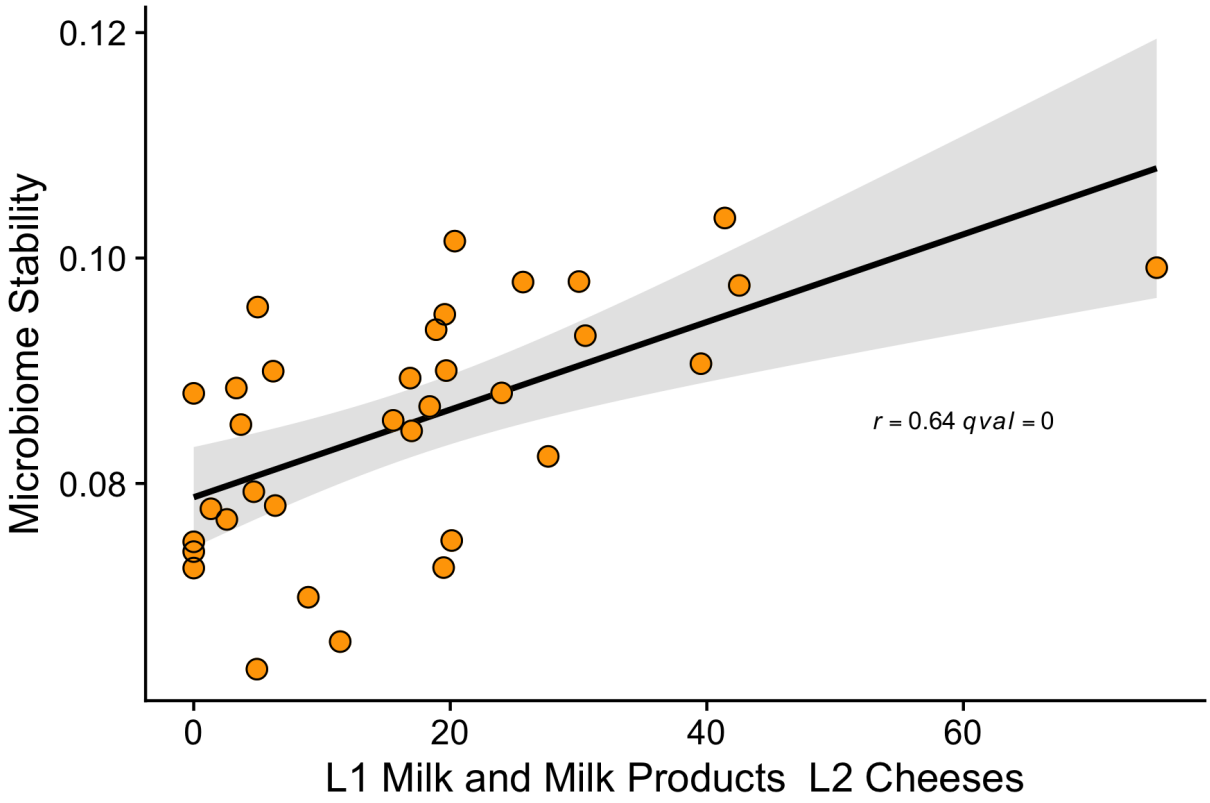


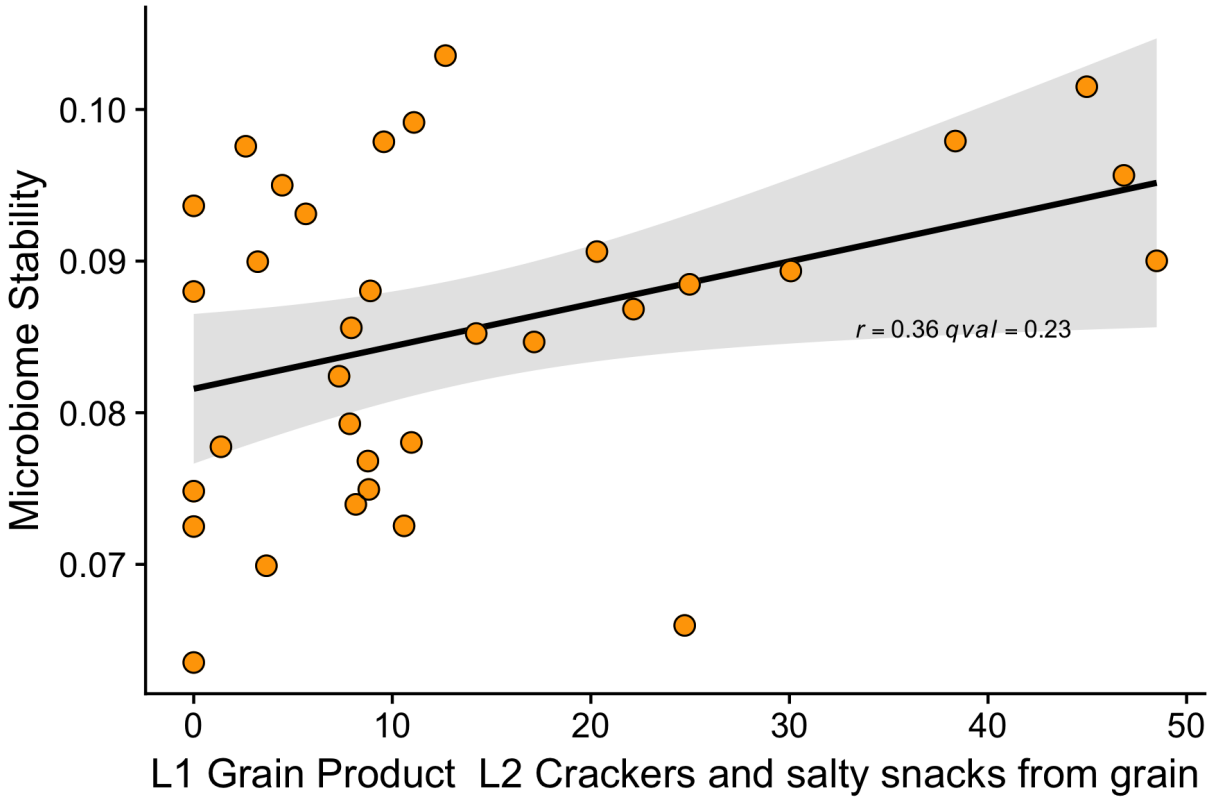


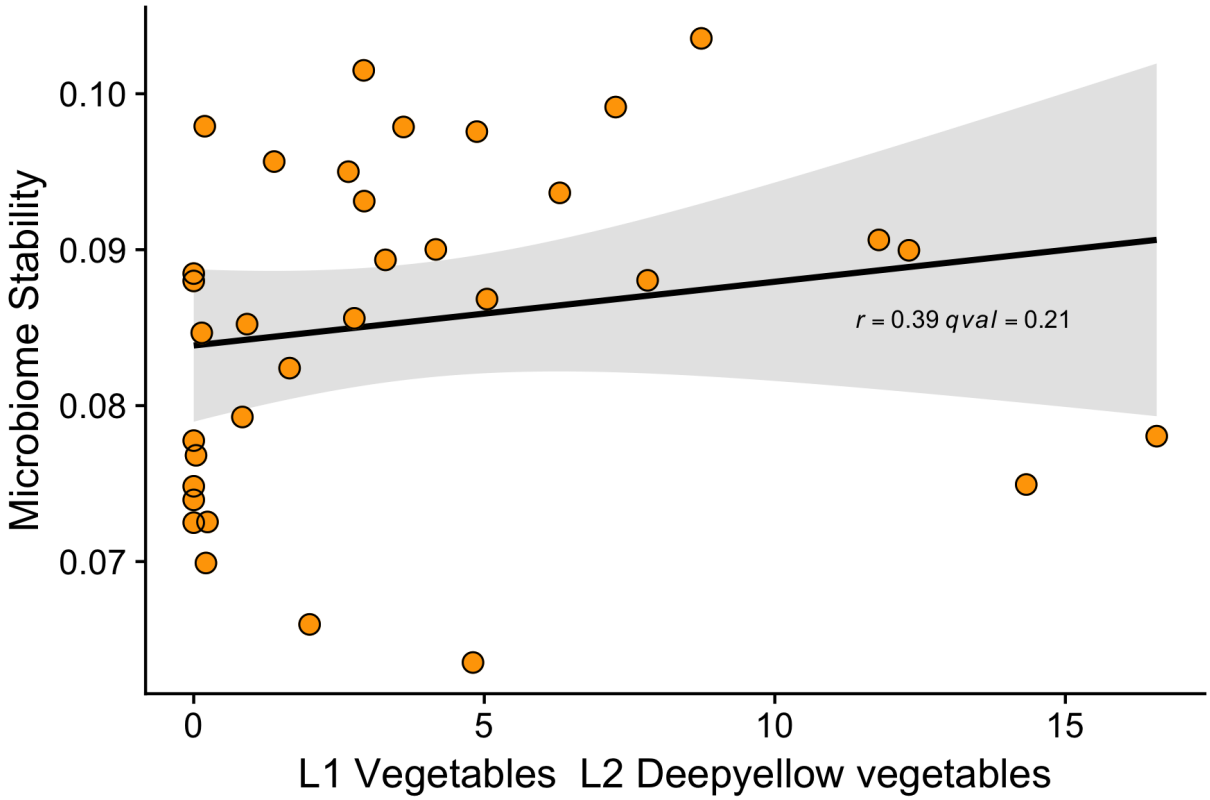

```
##                                                          Food       qvals
## 1                      L1_Milk_and_Milk_Products__L2_Cheeses 0.002104241
## 2                  L1_Fats_Oils_and_Salad_Dressings__L2_Fats 0.133450503
## 3 L1_Milk_and_Milk_Products__L2_Creams_and_cream_substitutes 0.133450503
## 4   L1_Grain_Product__L2_Pancakes_waffles_French_toast_other 0.170346707
```

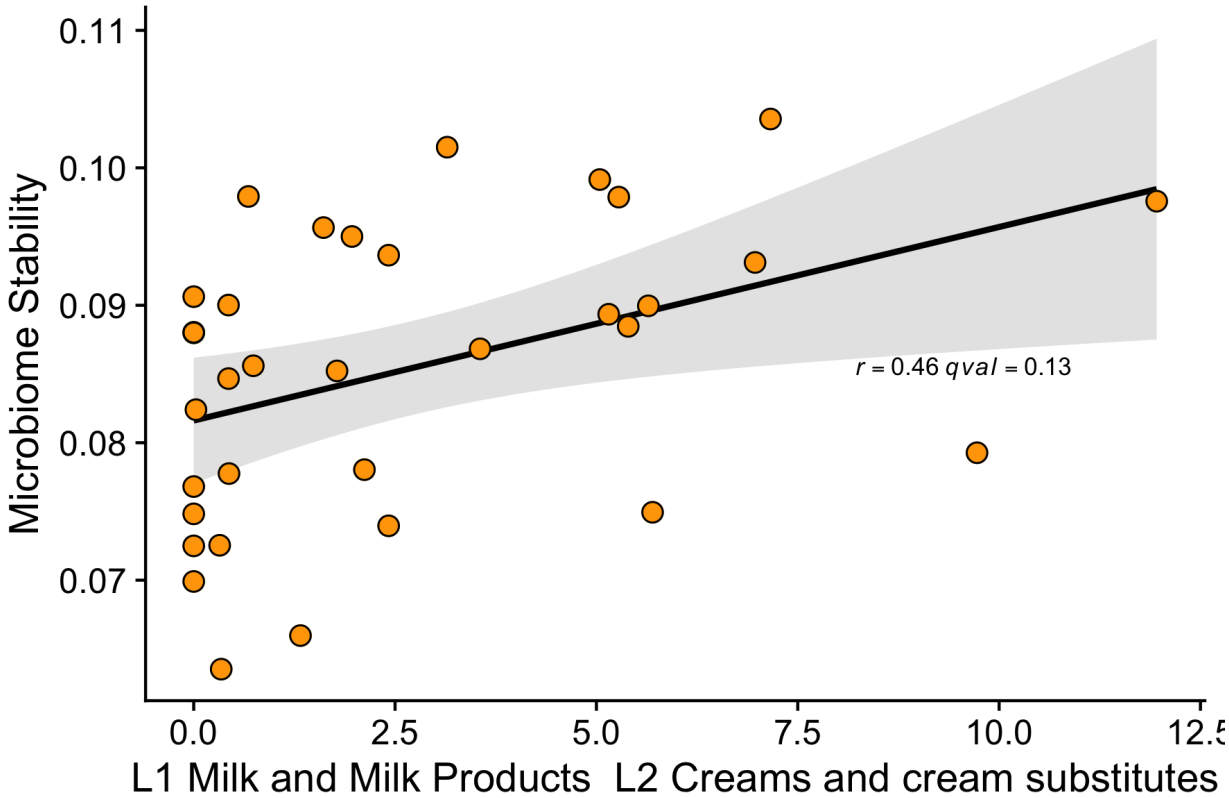
```
## 5                    L1_Vegetables__L2_Deepyellow_vegetables 0.214941421
## 6  L1_Grain_Product__L2_Crackers_and_salty_snacks_from_grain 0.226834358
## 7       L1_Sugars_Sweets_and_Beverages__L2_Sugars_and_sweets 0.226834358
##        cors
## 1 0.6394497
## 2 0.4418155
## 3 0.4611060
## 4 0.4132133
## 5 0.3866732
## 6 0.3622039
## 7 0.3675684
```

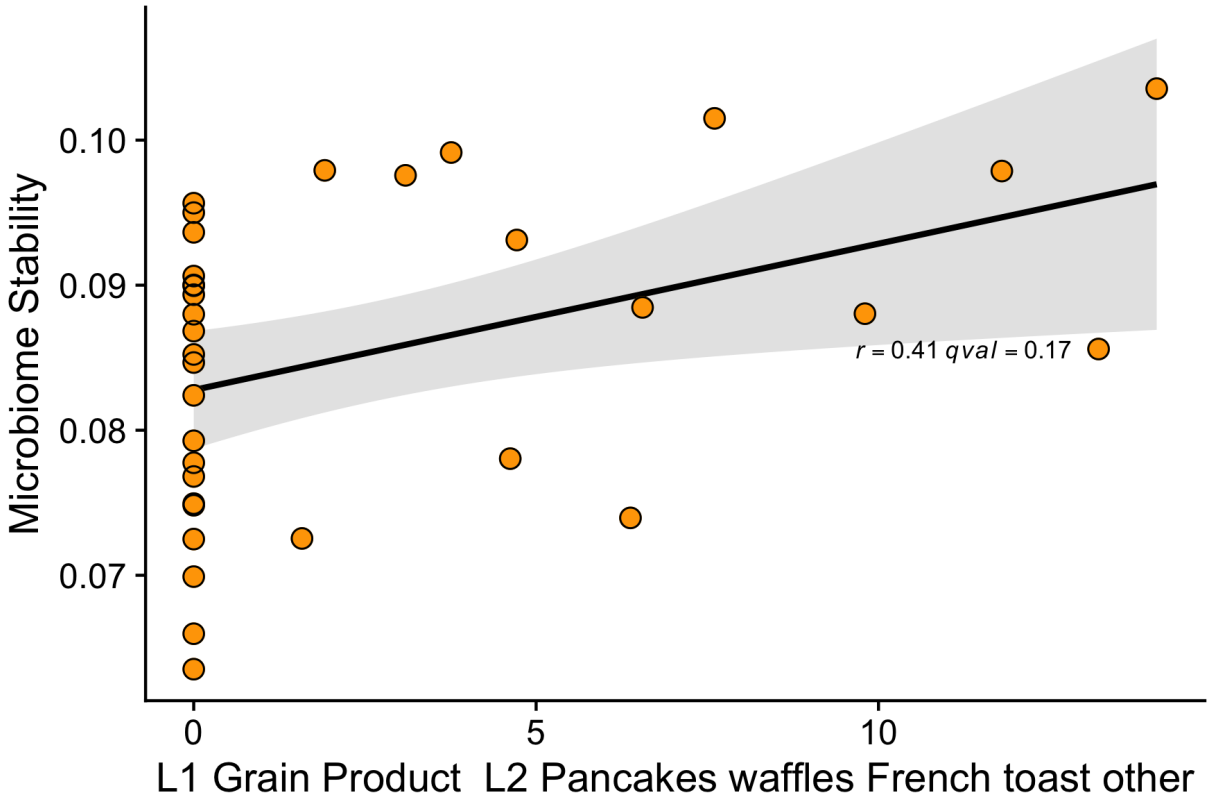


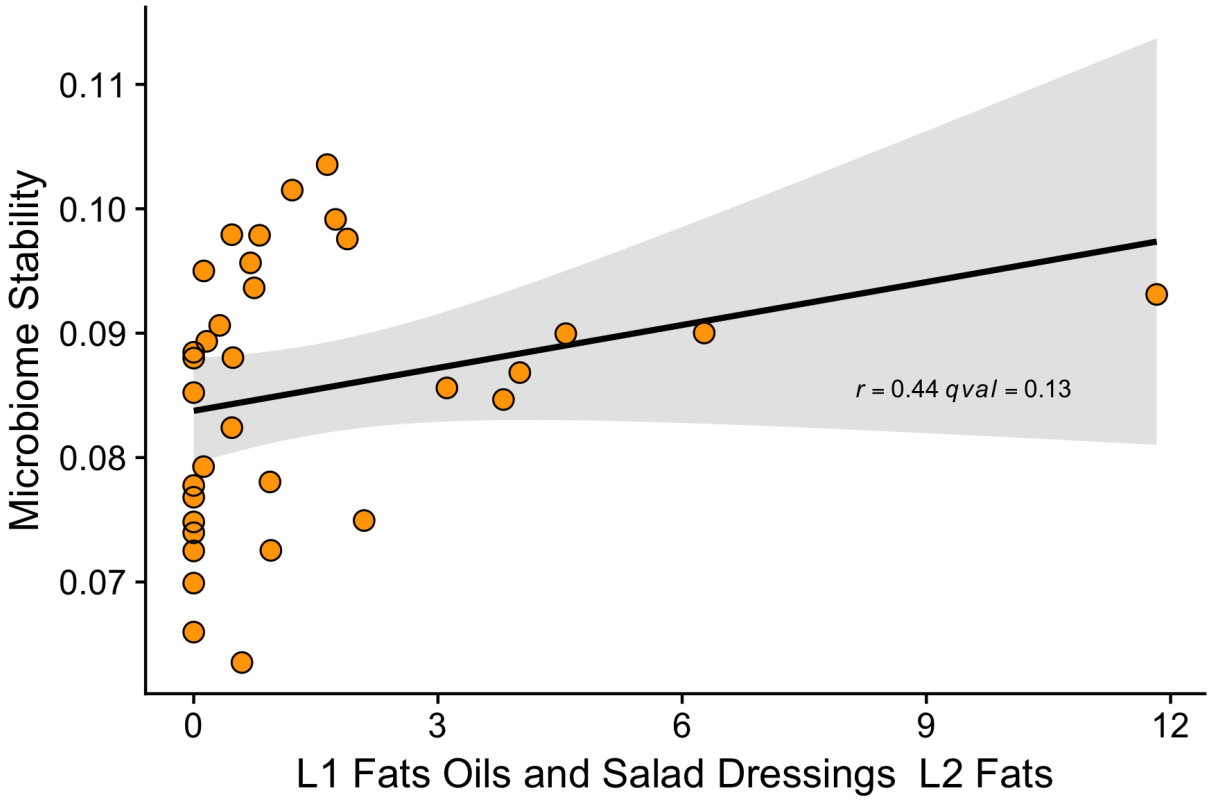

Microbiome Stability
0.12
0.10
0.08
r = 0.64 qval = 0
0
20
40
60
L1 Milk and Milk Products L2 Cheeses


Microbiome Stability
0.10
0.09
0.08
0.07
r = 0.36 qval = 0.23
0
10
20
30
40
50
L1 Grain Product L2 Crackers and salty snacks from grain


Microbiome Stability
0.10
0.09
0.08
0.07
r = 0.39 qval = 0.21
0
5
10
15
L1 Vegetables L2 Deepyellow vegetables


Microbiome Stability
0.11
0.10
0.09
0.08
0.07
r = 0.46 qval = 0.13
0.0
2.5
5.0
7.5
10.0
L1 Milk and Milk Products L2 Creams and cream substitutes






```
##   Row.names      qvals       cors
```

```
## 1    Axis.3 0.09923494 -0.39626100
## 2    Axis.4 0.09923494 -0.36546921
## 3    Axis.2 0.18376813  0.28775660
## 4    Axis.1 0.80952048  0.05021994
## 5    Axis.5 0.80952048 -0.04435484
```