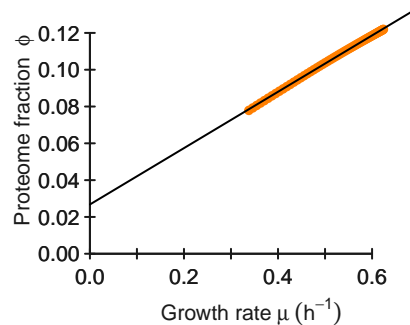
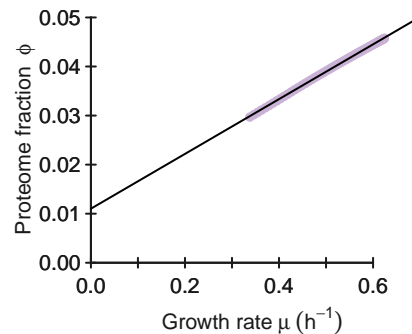
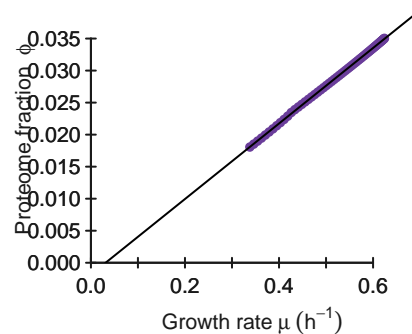
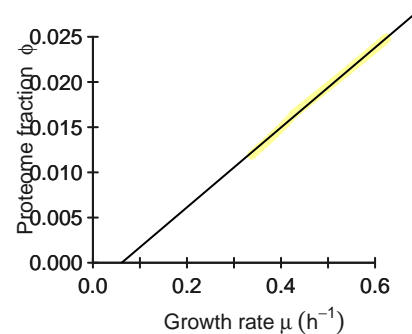
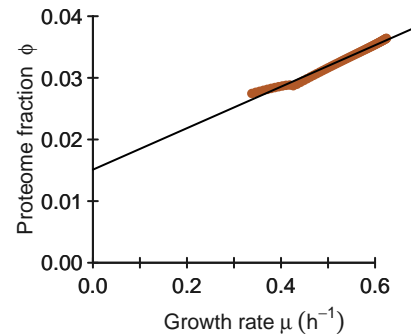
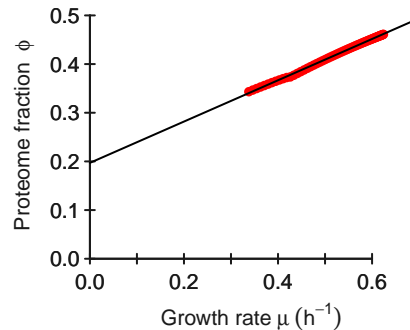
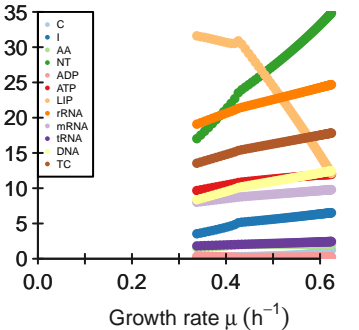
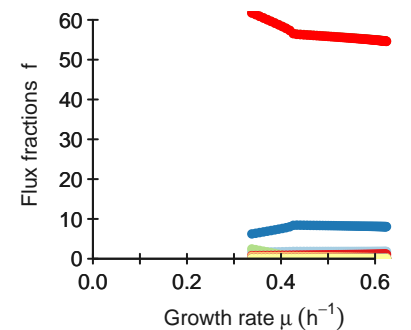
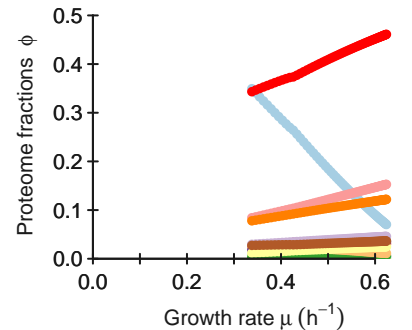
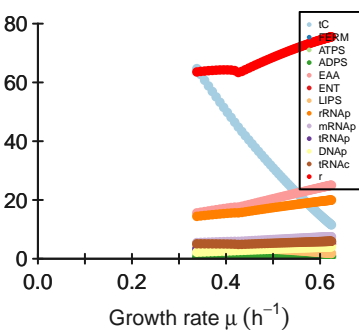
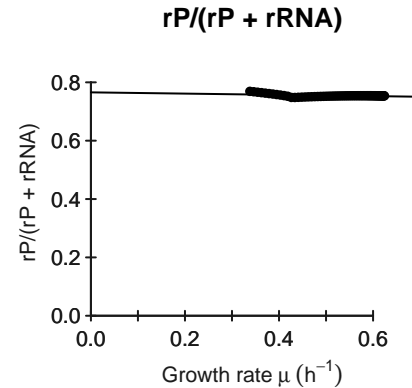
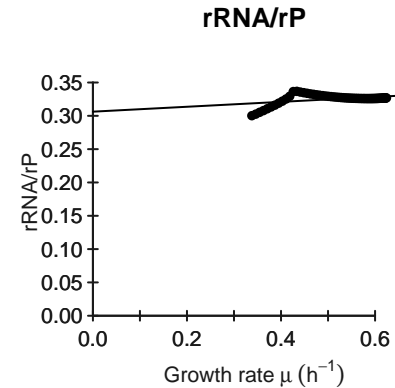
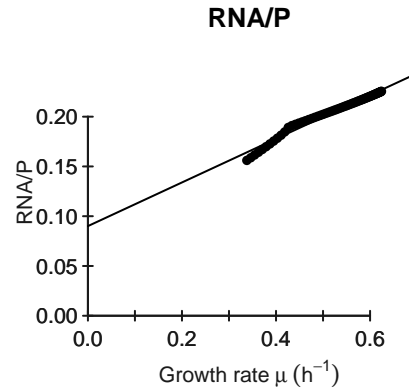
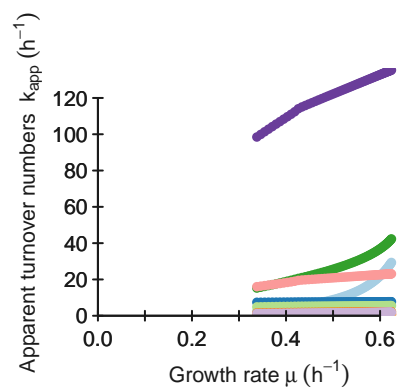
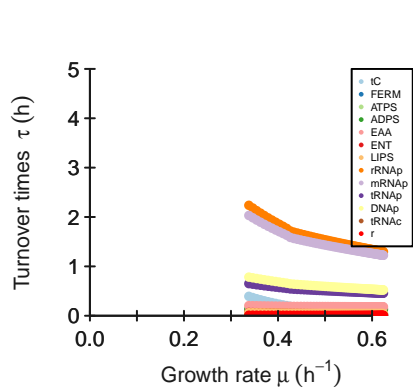
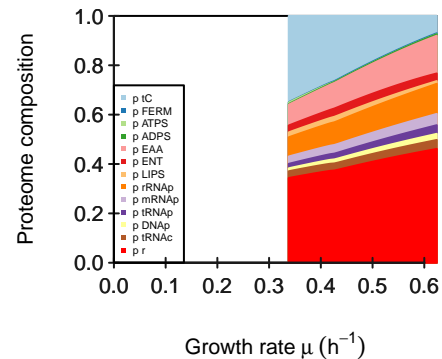
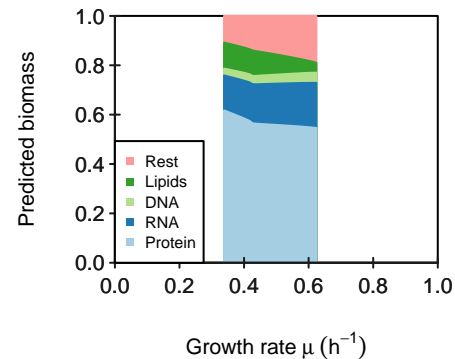
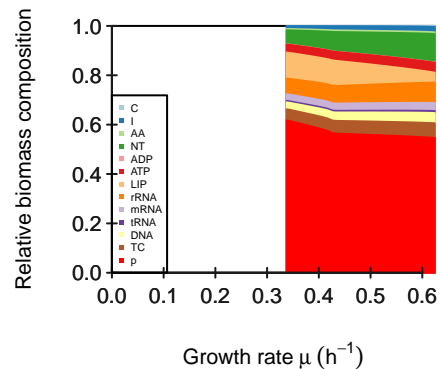
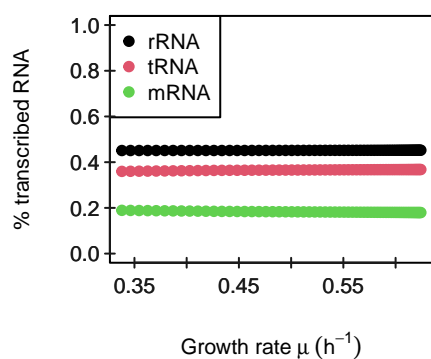
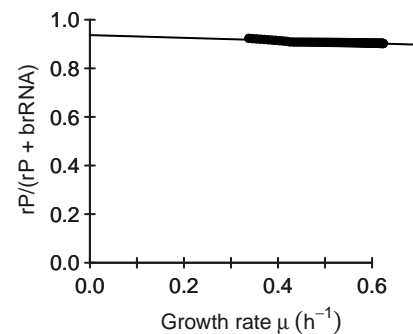


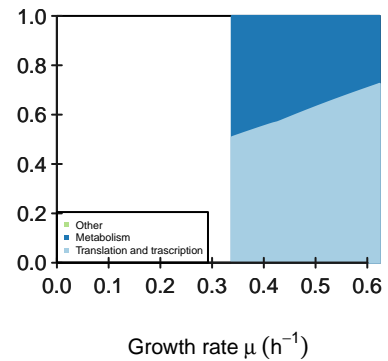
**rRNAp****mRNAp****tRNAp****DNAp****tRNAc****r**Metabolite concentrations  $c^m$  (g/L)Protein concentrations  $p$  (g/L)



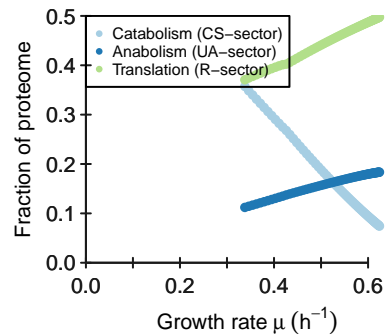
### Protein mass fraction in ribosome



Proteome sectors



### Proteome sectors



**M**

[illegible]

**K**

[illegible]

**KA**[illegible]

**kcat**[illegible]



**Keq**

|             |                    |                    |                    |                    |                    |                    |                    |                    |                    |                     |                     |                     |                     |
|-------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|
| <b>[1,]</b> | <b>[,1]</b><br>Inf | <b>[,2]</b><br>Inf | <b>[,3]</b><br>Inf | <b>[,4]</b><br>Inf | <b>[,5]</b><br>Inf | <b>[,6]</b><br>Inf | <b>[,7]</b><br>Inf | <b>[,8]</b><br>Inf | <b>[,9]</b><br>Inf | <b>[,10]</b><br>Inf | <b>[,11]</b><br>Inf | <b>[,12]</b><br>Inf | <b>[,13]</b><br>Inf |
|-------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|

### minimal phi constraint

[illegible]

### minimal f constraint

[illegible]