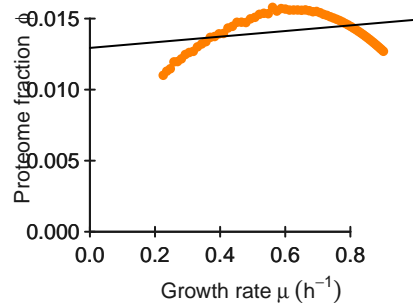
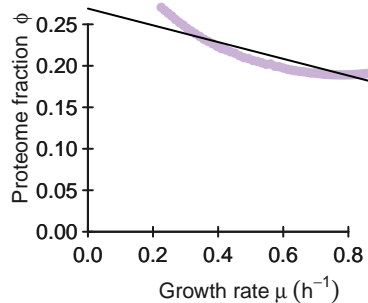
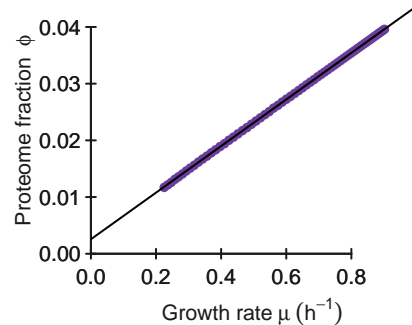
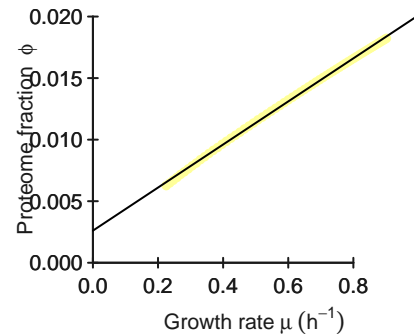
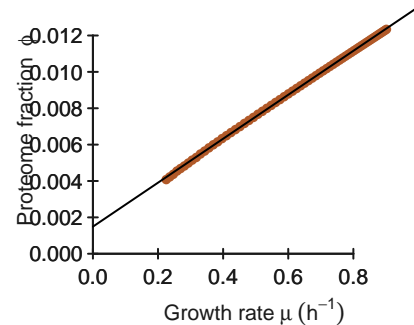
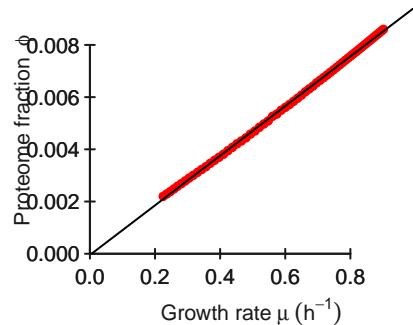
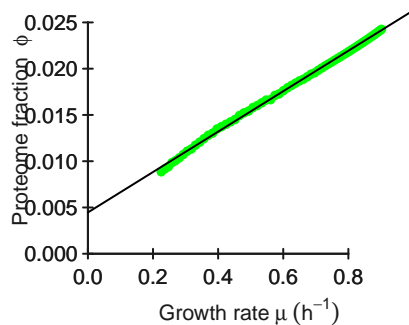
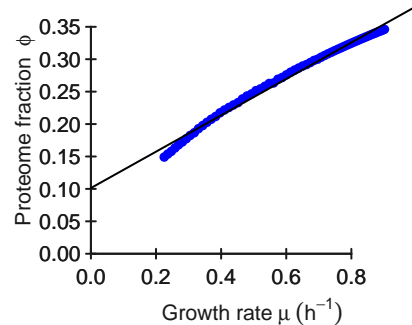
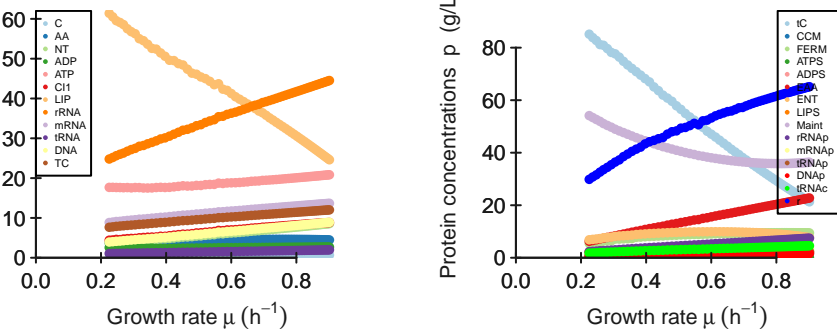
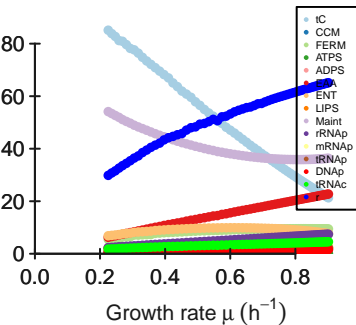
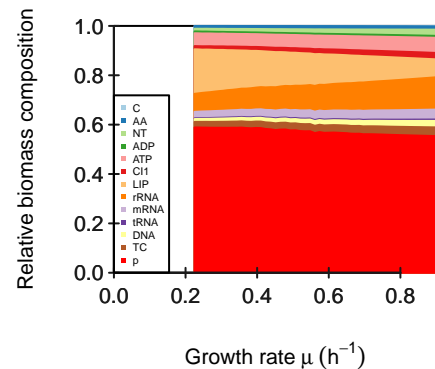
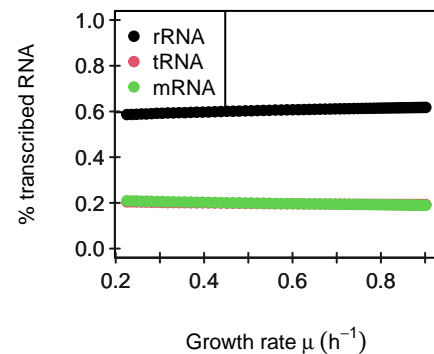
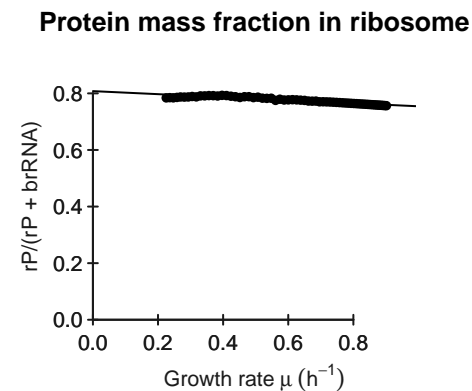
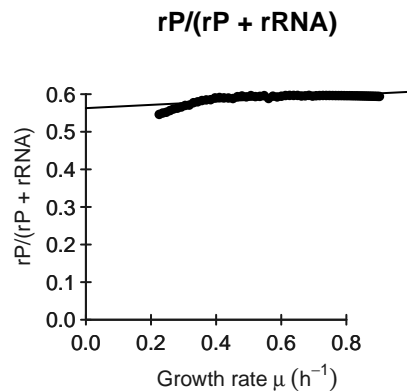
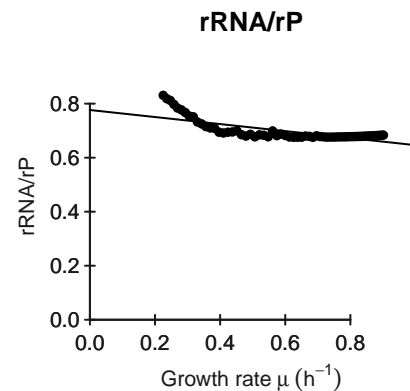
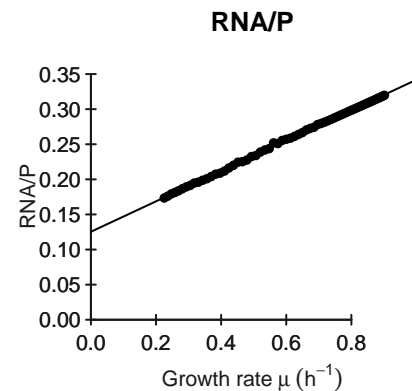
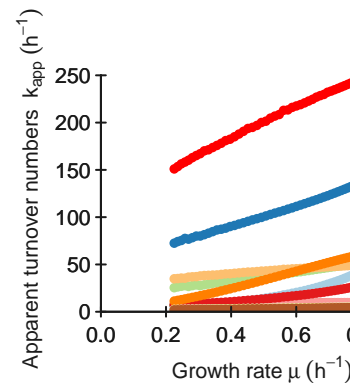
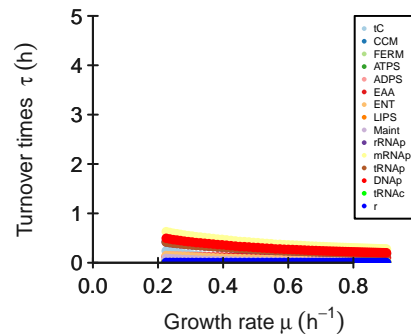
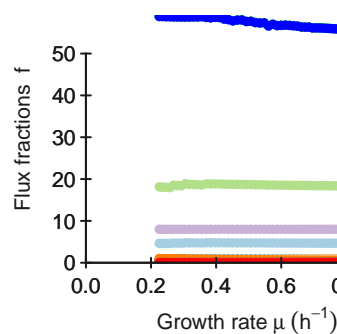
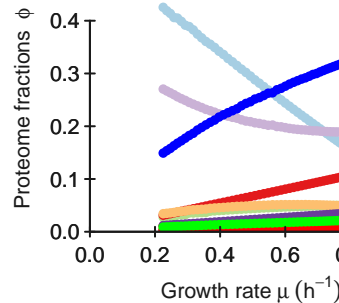
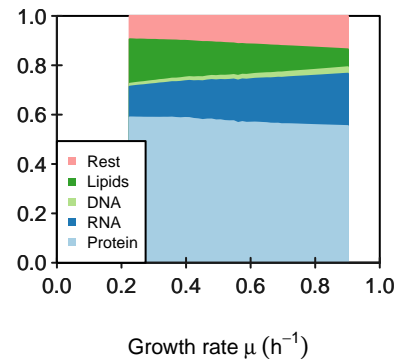


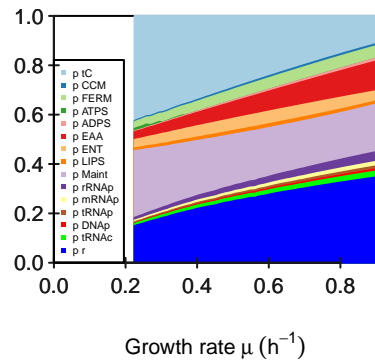
**LIPS****Maint****rRNAp****mRNAp****tRNAp****DNAp****tRNAc****r**Metabolite concentrations  $c^m$  (g/L)Protein concentrations  $p$  (g/L)



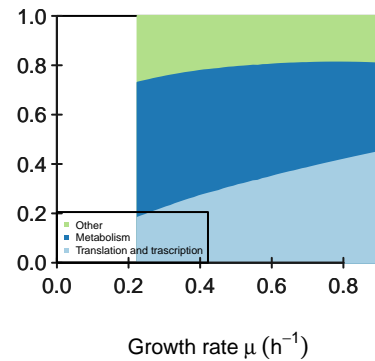
Predicted biomass



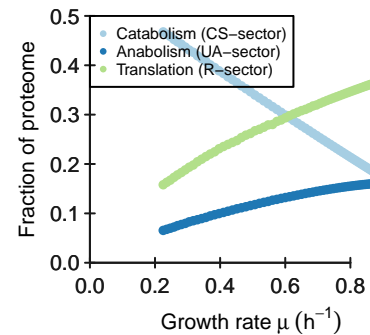
Proteome composition



Proteome sectors



Proteome sectors



## M

[illegible]

**K**

[illegible]

**KA**[illegible]

**kcat**[illegible]



## Keq

[1,]	[,1] Inf	[,2] Inf	[,3] Inf	[,4] Inf	[,5] Inf	[,6] Inf	[,7] Inf	[,8] Inf	[,9] Inf	[,10] Inf	[,11] Inf	[,12] Inf	[,13] Inf	[,14] Inf	[,15] Inf
------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	--------------	--------------	--------------	--------------	--------------	--------------

### minimal phi constraint

[1,]	[1] 0	[2] 0	[3] 0	[4] 0	[5] 0	[6] 0	[7] 0	[8] 0	[9] 0	[10] 0	[11] 0	[12] 0	[13] 0	[14] 0	[15] 0
------	----------	----------	----------	----------	----------	----------	----------	----------	----------	-----------	-----------	-----------	-----------	-----------	-----------

## minimal f constraint

[1,]	[,1] 0	[,2] 0	[,3] 0	[,4] 0	[,5] 0	[,6] 0	[,7] 0	[,8] 0	[,9] 8	[,10] 0	[,11] 0	[,12] 0	[,13] 0	[,14] 0	[,15] 0
------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	------------	------------	------------	------------	------------	------------