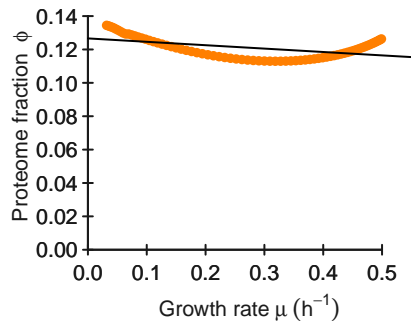
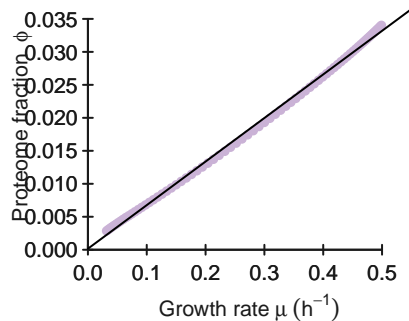
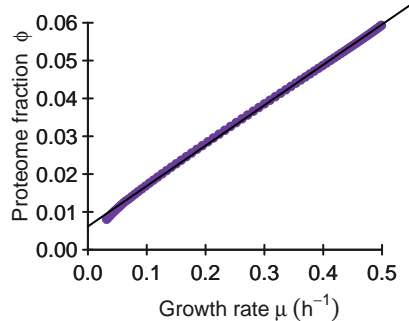
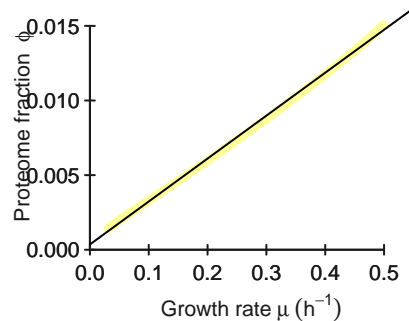
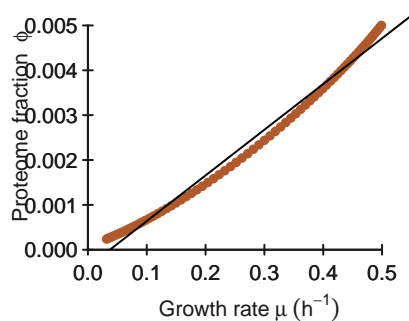
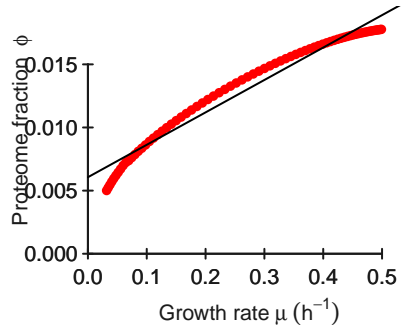
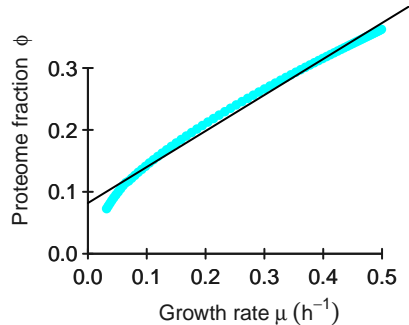
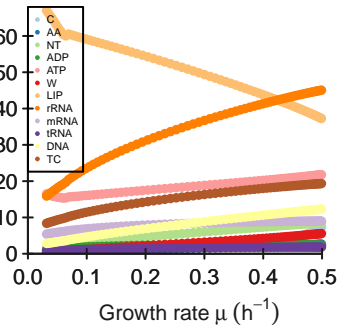
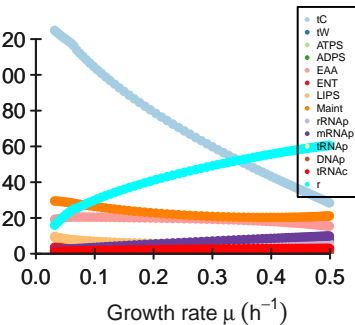
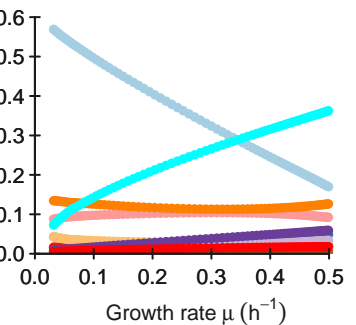
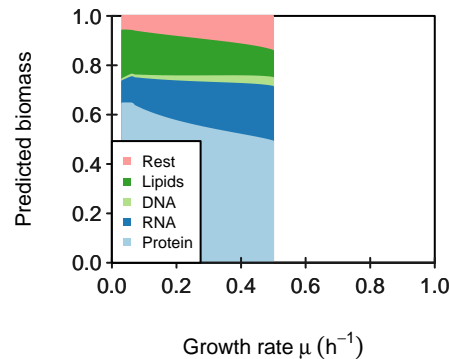
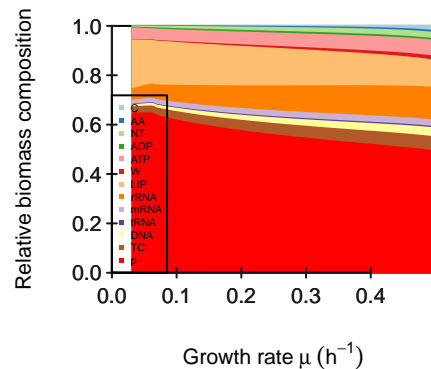
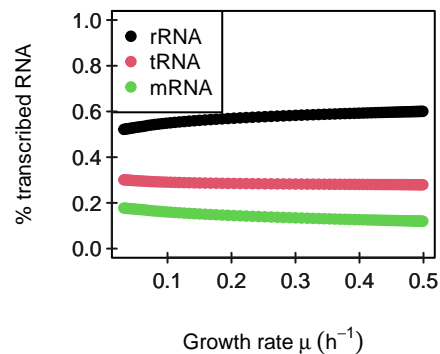
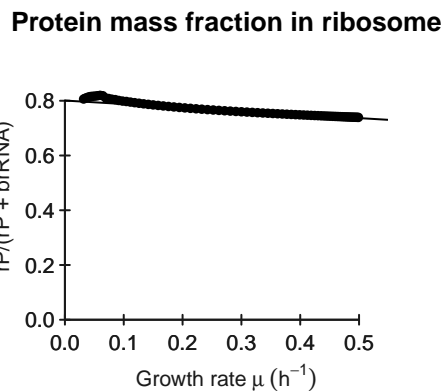
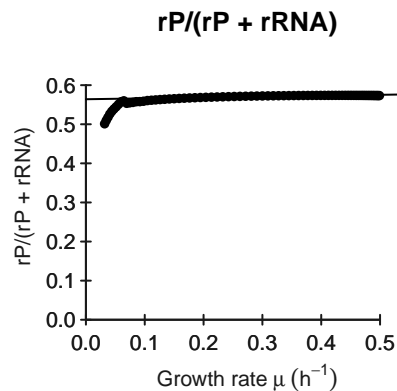
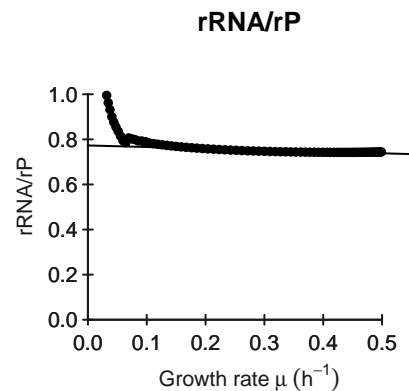
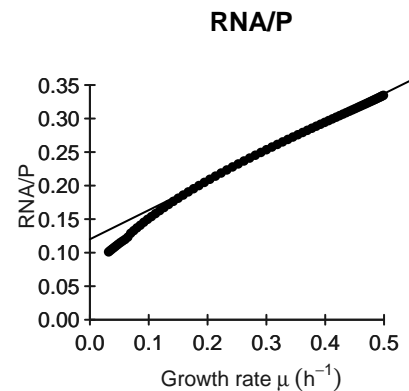
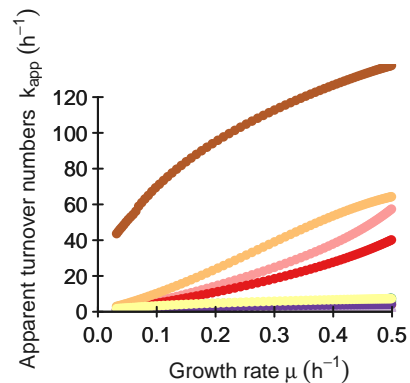
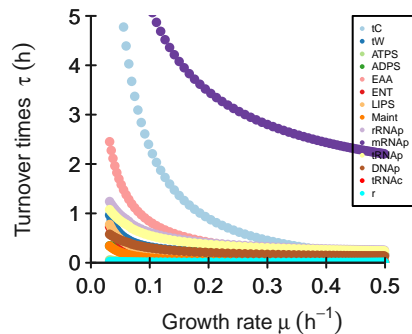
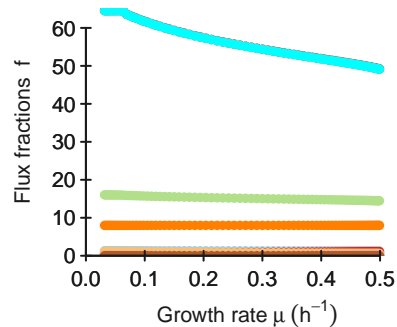
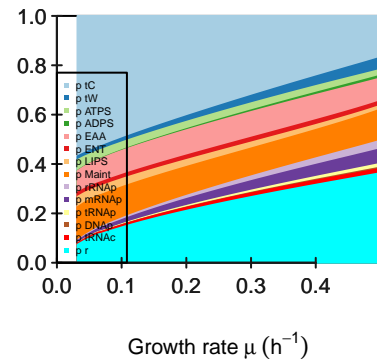


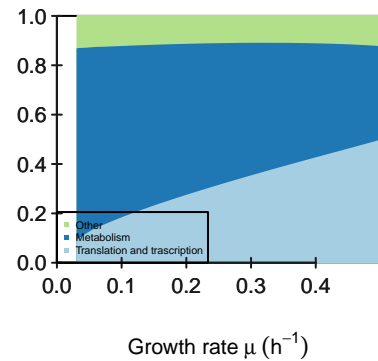
**Maint****rRNAp****mRNAp****tRNAp****DNAp****tRNAc****r**Metabolite concentrations  $c^m$  (g/L)Protein concentrations  $p$  (g/L)Proteome fractions  $\phi$ 



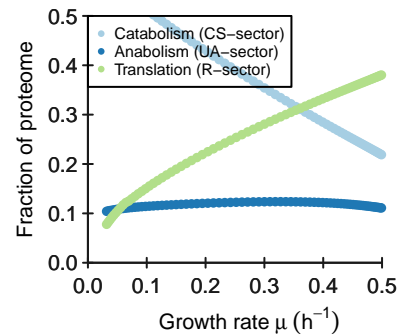
Proteome composition



Proteome sectors



Proteome sectors



**M**

[illegible]

**K**

**KA**[illegible]

# kcat

	tC	tW	ATPS	ADPS	EAA	ENT	LIPS	Maint	rRNAp	mRNAp	tRNAp	DNAP	tRNAc	r
kcatf	26	23	1775	12	11	152	58	75	9	1	9	15	10310	626
kcatb	3	2	178	1	1	15	6	0	0	0	0	0	0	0



**Keq**

[1,]	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]
	346.6666666666667	9.63165344608399	167.351898433376	6.33126660761736	33.076605822203	13.217197194722	88.3709298849332	Inf	Inf	Inf	Inf	Inf	Inf	Inf

## phi input

[1,]	[,1]	[,2]	[,3]	[,4]	[,5]	[,6]	[,7]	[,8]	[,9]	[,10]	[,11]	[,12]	[,13]	[,14]
	0.089	0.021	0.027	0.005	0.165	0.023	0.031	0.259	0.0426	0.0213	0.0071	0.002	0.023	0.284

**average saturation input**

3

### minimal phi constraint

[1,]

$$\begin{bmatrix} 1 \\ 0 \end{bmatrix}$$
$$[2]_0$$
$$[,3]_0$$
$$[4]_0$$
$$[5]_0$$
$$[6]_0$$
$$[7]_0$$
$$[8]_0$$
$$[9]_0$$

[,10]

[1]

[;

1

## minimal f constraint

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