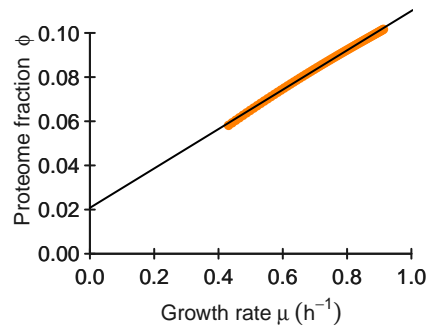
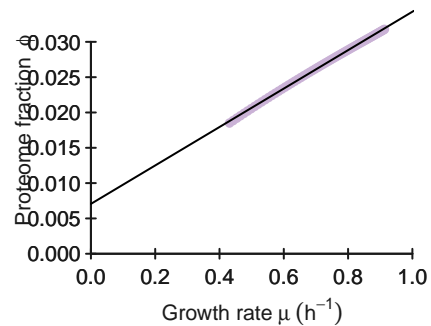


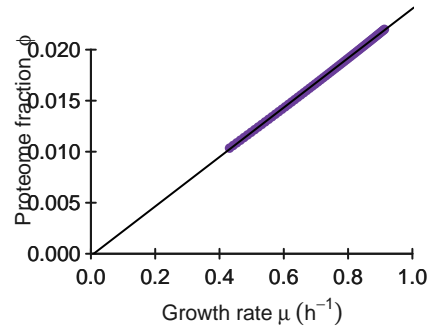
rRNAp



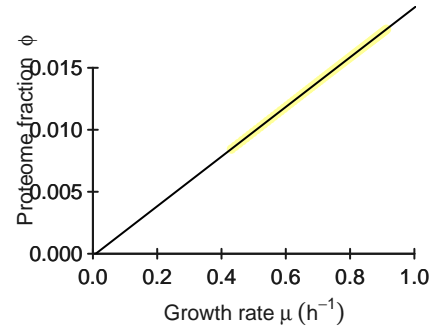
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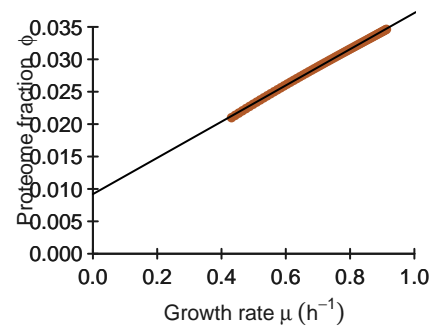
tRNAp



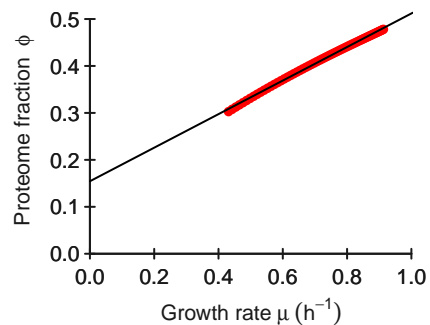
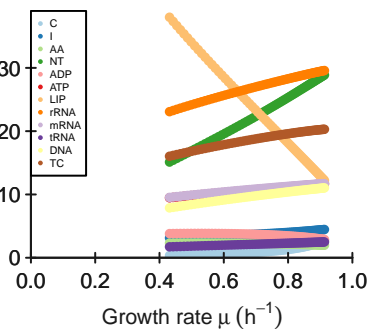
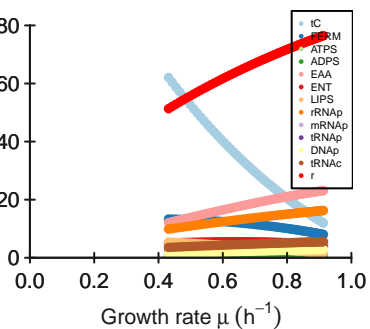
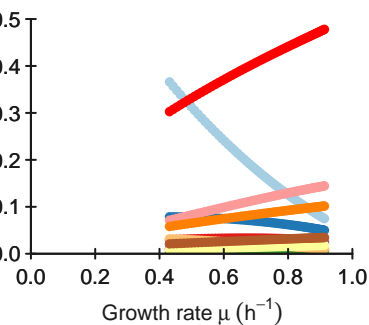
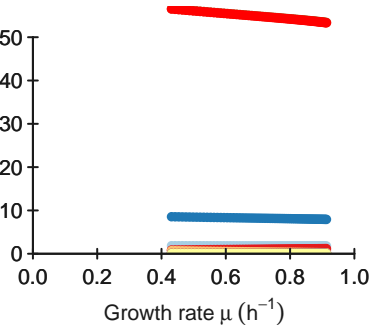
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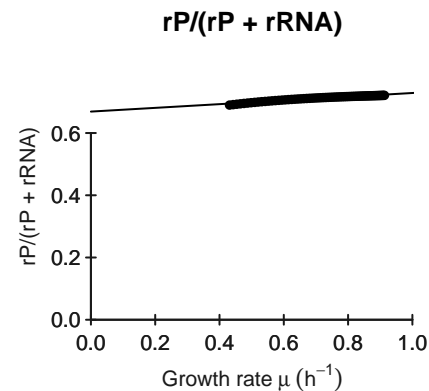
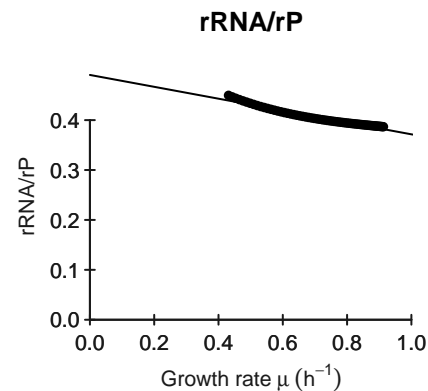
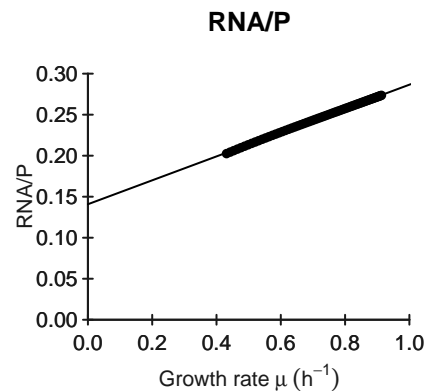
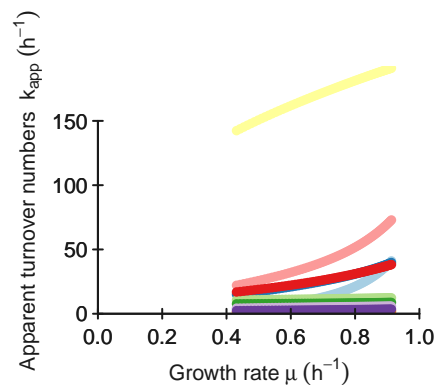
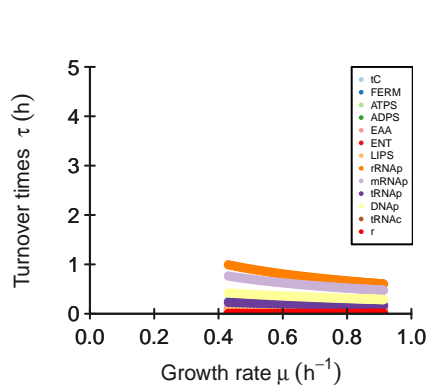


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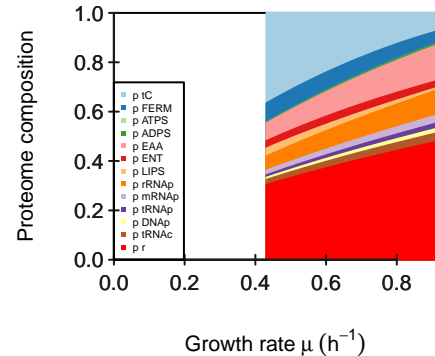
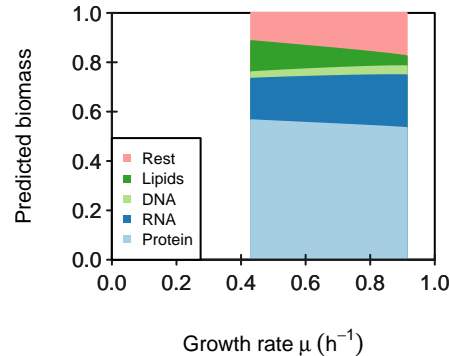
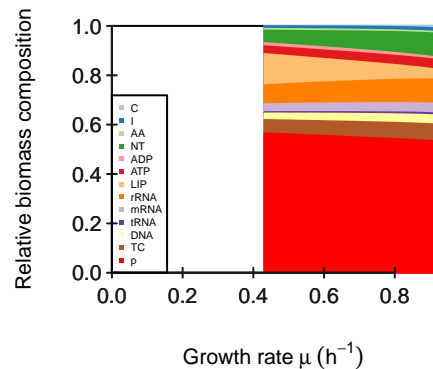
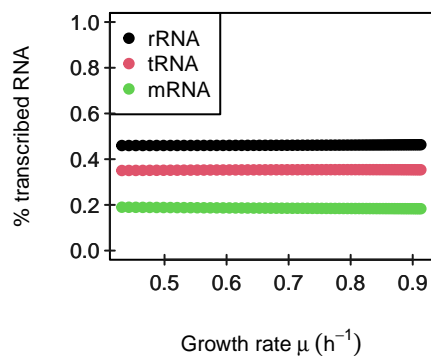
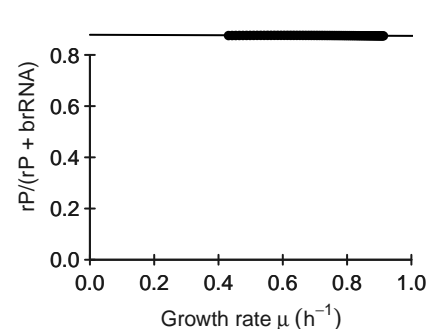


r

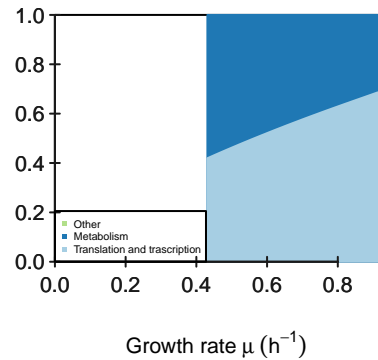
Metabolite concentrations  $c^m$  (g/L)Protein concentrations  $p$  (g/L)Proteome fractions  $\phi$ Flux fractions  $f$ 



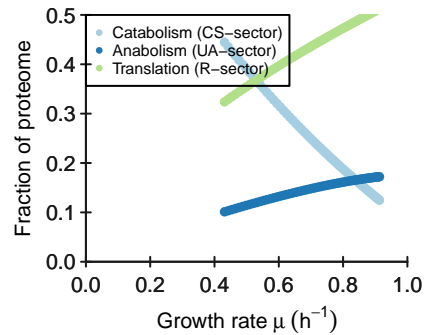
## Protein mass fraction in ribosome



Proteome sectors



Proteome sectors



**M**

[illegible]

**K**

[illegible]

**KA**[illegible]

**kcat**[illegible]



**Keq**

<b>[1,]</b>	<b>[,1]</b> Inf	<b>[,2]</b> Inf	<b>[,3]</b> Inf	<b>[,4]</b> Inf	<b>[,5]</b> Inf	<b>[,6]</b> Inf	<b>[,7]</b> Inf	<b>[,8]</b> Inf	<b>[,9]</b> Inf	<b>[,10]</b> Inf	<b>[,11]</b> Inf	<b>[,12]</b> Inf	<b>[,13]</b> Inf
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### minimal phi constraint

[illegible]

### minimal f constraint

[illegible]