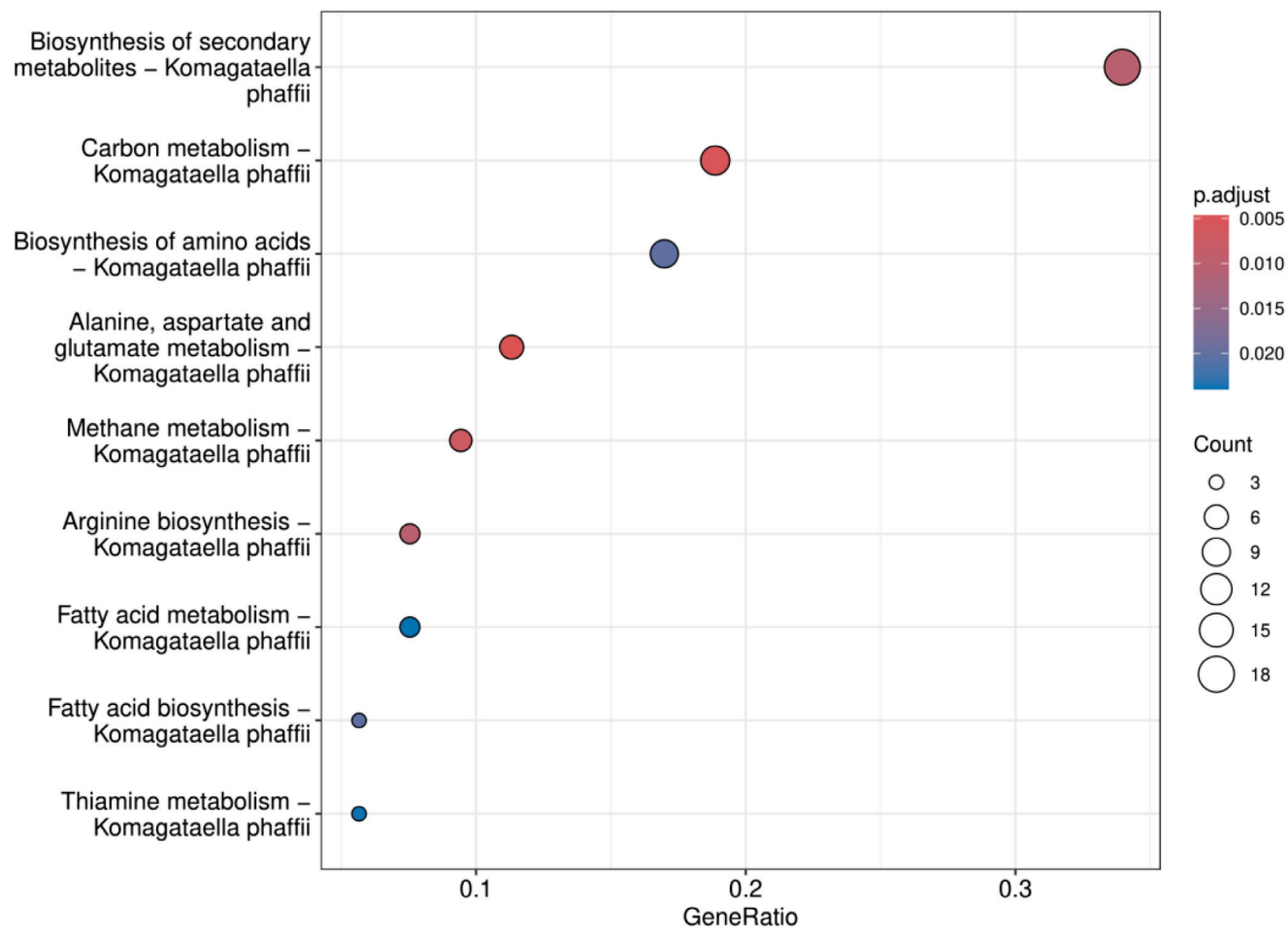


## SUPPLEMENTS

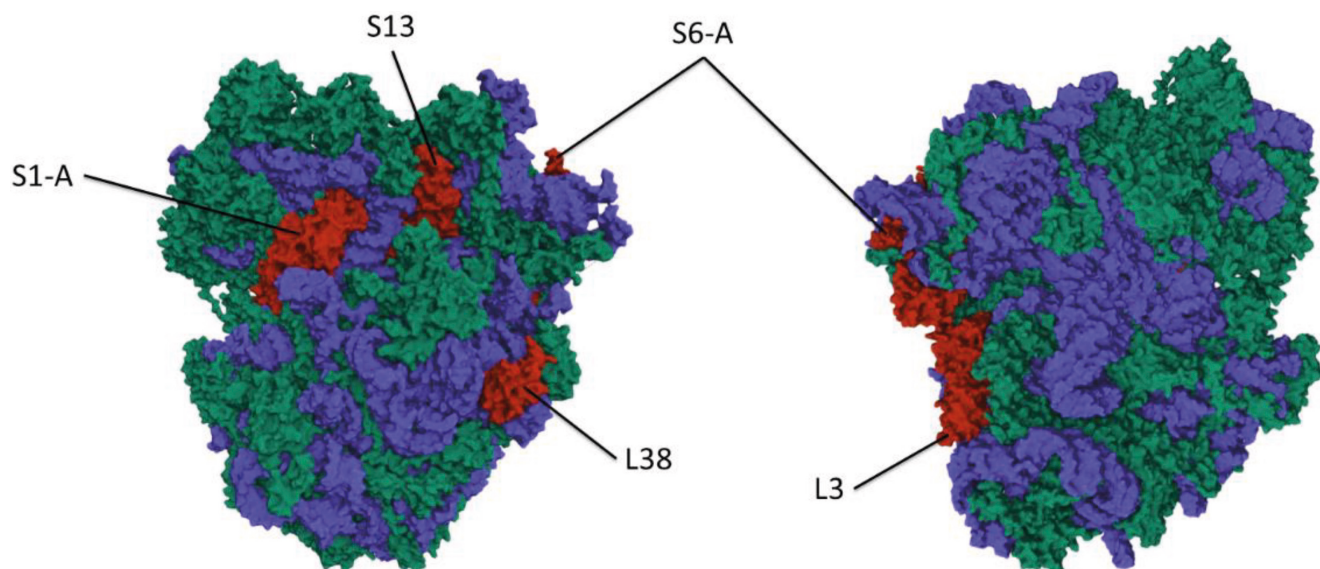
### Specific features of the transcriptomic response to nitrogen starvation in methylophilic yeast *Komagataella phaffii*

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GENETICS



**Fig. S1.** A graph illustrating the ratio of *K. phaffii* genes that alter expression under nitrogen starvation in methanol to a specific biochemical process (according to the KEGG database). The Y-axis indicates categories for which significant functional enrichments were identified. The X-axis indicates the ratio of the genes that changed expression and are associated with the corresponding categories to the genes associated with that category in the entire *K. phaffii* genome.



**Fig. S2.** Yeast (*S. cerevisiae*) 80S ribosome model. Red color indicates ribosomal proteins, encoded by *K. phaffii* orthologous genes that changed their expression during nitrogen starvation on methanol media. Purple indicates RNA, green — other ribosomal proteins. Visualized using Mol\* Viewer (Sehnal et al., 2021).

## References

Sehnal, D., Bittrich, S., Deshpande, M., Svobodová, R., Berka, K., Bazgier, V., Velankar, S., Burley, S. K., Koča, J., and Rose, S. A. 2021. Mol\* Viewer: Modern web app for 3D visualization and analysis of large biomolecular structures. *Nucleic Acids Research* 49:W431–W437. <https://doi.org/10.1093/nar/gkab314>

The initial structure was taken from the RCSB PDB (RCSB.org) of PDB ID 4U3M: Garreau de Loubresse, N., Prokhorova, I., Holtkamp, W., Rodnina, M. V., Yusupova, G., and Yusupov, M. 2014. Structural basis for the inhibition of the eukaryotic ribosome. *Nature* 513:517–522. <https://doi.org/10.1038/nature13737>

**Table S1. Composition of BMG, BMM+N, and BMM-N media**

Component		BMG	BMM+N	BMM-N
Salts	KH <sub>2</sub> PO <sub>4</sub>	18.4 mM/l	18.4 mM/l	18.4 mM/l
	MgSO <sub>4</sub> × 7H <sub>2</sub> O	10.4 mM/l	10.4 mM/l	10.4 mM/l
	CaCl <sub>2</sub>	2.3 mM/l	2.3 mM/l	2.3 mM/l
	NaCl	4.3 mM/l	4.3 mM/l	4.3 mM/l
	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	34.8 mM/l	34.8 mM/l	—
Potassium phosphate buffer (1M, pH = 6)		100 ml/l	100 ml/l	100 ml/l
Vitamins (2500x solution)		0.4 ml/l	0.4 ml/l	0.4 ml/l
Trace elements (2500x solution)		0.4 ml/l	0.4 ml/l	0.4 ml/l
Carbon source	Glycerol	5 ml/l (0.5 %)	—	—
	Methanol	—	5 ml/l (0.5 %)	5 ml/l (0.5 %)

**Table S2. Composition of 2500x vitamin and trace element solution (calculated for 100 ml)**

	Component	Mass calculated for 100 ml
Vitamins	Biotin	3 mg
	Calcium pantothenate	300 mg
	Folic acid	300 mg
	p-Aminobenzoic acid	30 mg
	Pyridoxine HCl	60 mg
	Thiamine HCL	60 mg
	Riboflavin	30 mg
	Inositol	1500 mg
Trace elements	ZnSO <sub>4</sub>	85 mg
	H <sub>3</sub> BO <sub>4</sub>	125 mg
	FeCl <sub>3</sub>	50 mg
	MnSO <sub>4</sub>	100 mg
	KI	25 mg
	NaMoO <sub>4</sub>	50 mg
	CuSO <sub>4</sub> × 5H <sub>2</sub> O	11.75 mg