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Investigating the physiological response of *Pichia (Komagataella) pastoris* GS115 to the heterologous expression of misfolded proteins using chemostat cultures.

**Andy Hesketh^{1#}, Juan I. Castrillo^{1#}, Trevor Sawyer¹, David B. Archer²
and Stephen G. Oliver^{1*}**

¹ **Cambridge Systems Biology Centre and Department of Biochemistry. University of Cambridge, Sanger Building, 80 Tennis Court Road, Cambridge CB2 1GA, UK.**

² **School of Biology, University of Nottingham, University Park, Nottingham, NG7 2RD, UK.**

***Corresponding author sgo24@cam.ac.uk**

#Contributed equally to this work.

Supplementary Table S1. Composition of Non-inducible (sorbitol) and Inducible (sorbitol and methanol) carbon (C) limited media.

Media composition based on (Baganz et al. 1997; Castrillo et al. 2007; Jungo et al. 2007).

	Sorbitol (C) limited medium	Sorbitol+methanol (C) limited medium
Sorbitol	20 g l ⁻¹ (0.652 g. at. C l ⁻¹)	11.3 g l ⁻¹ (0.372 g. at. C l ⁻¹)
Methanol	--	9.0 g l ⁻¹ (0.280 g. at. C l ⁻¹)
(NH ₄) ₂ SO ₄		3.13 g l ⁻¹
KH ₂ PO ₄		2.0 g l ⁻¹
MgSO ₄ · 7H ₂ O		0.55 g l ⁻¹
NaCl		0.10 g l ⁻¹
CaCl ₂ · 2H ₂ O		0.09 g l ⁻¹
Histidine		0.03 g l ⁻¹
Uracil		0.02 g l ⁻¹
ZnSO ₄ · 7H ₂ O		0.07 mg l ⁻¹
FeCl ₃ · 6H ₂ O		0.05 mg l ⁻¹
CuSO ₄ · 5H ₂ O		0.01 mg l ⁻¹
H ₃ BO ₃		0.01 mg l ⁻¹
KI		0.01 mg l ⁻¹
Inositol		62 mg l ⁻¹
Thiamine/HCl		14 mg l ⁻¹
Pyridoxine		4 mg l ⁻¹
Ca-pantothenate		4 mg l ⁻¹
Biotin		0.3 mg l ⁻¹
pH		5.0

References

- Baganz F, Hayes A, Marren D, Gardner DC, Oliver SG. (1997) Suitability of replacement markers for functional analysis studies in *Saccharomyces cerevisiae*. *Yeast* 13, 1563-1573. PubMed PMID: 9509575.
- Castrillo JI, Zeef LA, Hoyle DC, Zhang N, Hayes A, Gardner DC, Cornell MJ, Petty J, Hakes L, Wardleworth L, Rash B, Brown M, Dunn WB, Broadhurst D, O'Donoghue K, Hester SS, Dunkley TP, Hart SR, Swainston N, Li P, Gaskell SJ, Paton NW, Lilley KS, Kell DB, Oliver SG. (2007) Growth control of the eukaryote cell: a systems biology study in yeast. *J Biol.* 6:4. PubMed PMID: 17439666.
- Jungo C, Marison I, von Stockar U. (2007) Regulation of alcohol oxidase of a recombinant *Pichia pastoris* Mut+ strain in transient continuous cultures. *J Biotechnol.* 130, 236-246. PubMed PMID: 17566583.