Ofir et al. Supplementary figures

```
34
34
34
                  1
                          RDYSELSKKLQIRLQFAYYKYKTKQTDKNFTDLK
Nrm1
sbay_21681
                  \bar{1}
                          KDYSELSKK<mark>LQIRL</mark>QFAYYKYKTKQTNKKFTDLK
                  1
                          AHYTELSKKLQIRLQLAYYKYRTKQEHVKFNELK
Q6FQJ4_CANGA
                  1
                     34
Q6CL21_KLULA
                          KLTDENILR<mark>L</mark>RS<mark>RV</mark>QL<mark>A</mark>YY<mark>K</mark>YRTKQVHLKFSEIV
Kwal_6092
                          VNFDQVADK<mark>L</mark>RI<mark>RM</mark>QL<mark>A</mark>YY<mark>K</mark>LKTKQGHLQFRQLK
                  1
                     34
                  1
                     34
Q6CHG8_YARLI
                          GKIREHADR<mark>L</mark>KM<mark>RL</mark>QL<mark>A</mark>LY<mark>K</mark>INTKQTNVSLAALE
                  1
S.pombe Nrm1
                     34
                          DDIQCCAKN<mark>LRLRLELA</mark>MY<mark>K</mark>VQVNQTFSPLQDLP
                     34
                          PPAATRAETLRLRLSLANYKVRTGQTTVPLSELQ
Q4I804_GIBZE
                  1
                     34
                  1
Q52BB9_MAGGR
                          ELTRQTAETLRLRLRLAAYKLKTGQADVPLEQLQ
                     34
Q7RYK4_NEUCR
                  1
                          QAARQKAEI<mark>L</mark>RL<mark>RL</mark>SL<mark>A</mark>AY<mark>K</mark>IQTGQTDVPLEQLE
                     34
Q5B3H8_EMENI
                  1
                          QFIQEKATL<mark>L</mark>RS<mark>RL</mark>QNAMRRVRDPQFDRRLSELE
                     34
                  1
                          DSVREFSRTLKSRLNCAMVKLSKEHEQVALIPPP
Srl3
                  1
                     34
                          KPIREISNNLKSRLNYAYVKMQQNMLQHSKRGLD
Q6CNE8_KLULA
                     34
                          RPIREISHTLRTRLNYALVKLQNGWTDKTLPELE
Whi5
                     34
                  1
                          KPIKEISNELKTRLNYALMKLQNGWVDKSLPELE
Q6FMS3_CANGA
                  1
                     34
Q759P2_ASHGO
                          KPIREISFNLKTRLNYAFVKLQNGWQDKTLPELE
Kwal_19749
                  1
                     34
                          KPIREISNNLKTRLSYAFVKLQNGWVDKTLPELE
Q4P866_USTMA
                     34
                  1
                          HEVEMYAHALRTRLQFASFKALNGVGKTSLSDLT
                  1
                     34
                          AEVSKIARRLQNRLALAKFKTKHGWEDLTLDSIE
Q4I8UO_GIBZE
Q7S472_NEUCR
                  1
                     34
                          VEISRMVRRLQN<mark>RL</mark>AL<mark>A</mark>QF<mark>K</mark>TKHGLEDLTLDSIE
                     34
Q874Y1_PODAN
                  1
                          AEISKMARR<mark>L</mark>QN<mark>RL</mark>AL<mark>A</mark>QF<mark>K</mark>TKHGLEDLTLDKIE
                     34
Q6CGX3_YARLI
                  1
                          AEISRMTRNLKSRLKLATYKTKRGWDNLTFDTIE
Q55IU7_CRYNE
                  1
                     34
                          VELEKKMHQLQQRLELASVKASNGWTDLSVKEIE
Q4IJZ5_GIBZE
                  1
                     34
                          GHIGELSNELRTRLSYAMVKVNNGWQSNSLEEVE
Q51STO_MAGGR
                  1
                     34
                          SRMGELSHELKARLSYAMVKVNNGWESHSIDEVE
Q7S3UO_NEUCR
                  1
                     34
                          SRLGELSAELKTRLSY<mark>A</mark>MVKVNNGWQSHSIDQVE
Q4P797_USTMA
                  1
                     34
                          TRLLALSKH<mark>L</mark>MTRLQYANFKVEHGWSKQSLSEVE
                     34
Q9HGL9_SCHPO
                  1
                          TFEYKLSNKLRARLKAAFFKVDHGWEDQTLDQVE
                     34
Q6CFA6_YARLI
                  1
                          SDNEKLAAA<mark>M</mark>RT<mark>RL</mark>NF<mark>A</mark>MV<mark>K</mark>VQK<mark>G</mark>WEDRSIDQIE
                     28
                  1
                          DTIGLAATK<mark>L</mark>KL<mark>KL</mark>QL<mark>A</mark>LY<mark>K</mark>VQQNKQTR.....
    albicans
    hansenii | 1 | 28 | ATAGLAATK<mark>L</mark>KL<mark>KL</mark>QL<mark>A</mark>FY<mark>K</mark>LQHKSNSI.....
```

Fig. S1. Identification of Whi5 / Nrm1 homologs. In order to identify potential Whi5 homologs in the *C. albicans* genome, we used the generalized profile method (Bucher *et al.*, 1996), starting from a multiple alignment of *S. cerevisiae* Whi5 and its obvious homologs from other yeast species, including *S. pombe* Nrm1. After five cycles of iterative profile refinement, a conserved sub-region of the Whi5 family was identified to be present in several fungal proteins without overt sequence similarity to Whi5. The full sequences of the proteins aligned in this figure, together with additional *Candida spp.* homologous sequences, can be found in Table S4.

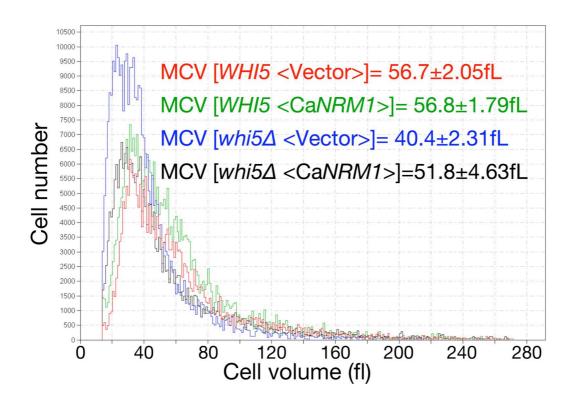


Fig. S2. CaNrm1 can complement the reduced cell size phenotype of *S. cerevisiae whi5* Δ . The *S. cerevisiae whi5* Δ strain (Y01859) and its isogenic wild-type (BY4741) were transformed with either the CaNRM1-carrying plasmid KB1879 or the B2201 vector plasmid. Cells were grown to log phase, and tested as described in *Methods*. Representative curves of a single experiment are shown; the Mean Cell Volume (MCV) data represent the average +/- SD of 6

experiments.

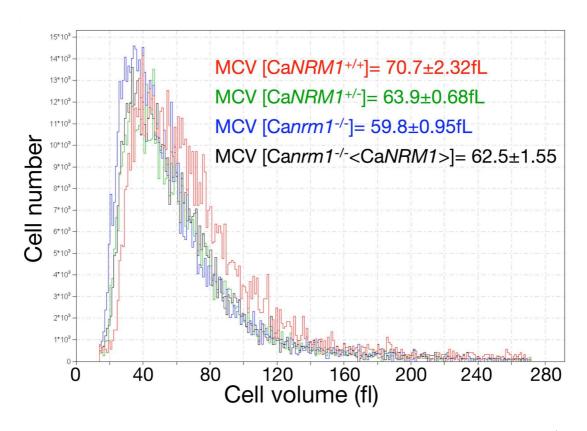


Fig. S3. CaNrm1 affects cell size in *C. albicans*. Cell size analysis of the Ca*nrm1*^{-/-} mutant (KC356) vs. heterozygote (KY352), wild-type (CAI4 <Ca*URA3*>) and reintegrant (KC436). Cells were grown to log phase, and tested as described in *Methods*. Representative curves of a single experiment are shown; the Mean Cell Volume (MCV) data represent the average +/- SD of 6 experiments.

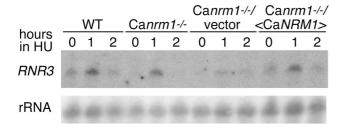


Fig. S4. Effect of CaNRM1 deletion and HU (200 mM) on RNR3 expression (orf19.5845). Cells were exposed to 200 mM HU for the indicated amounts of time. Northern blotting was performed to assess the induction of RNR3. rRNA hybridization served as loading control. The low signal level precluded quantitation by phosphorimager. The strains are indicated as follows: + = CAI4 (wild-type); $\Delta = \text{KC392}$ (Canrm1^{-/-}); Δ/v is KC392 transformed with vector plasmid pBES116; and $\Delta/+$ is KC392 transformed with the CaNRM1 plasmid KB1993.

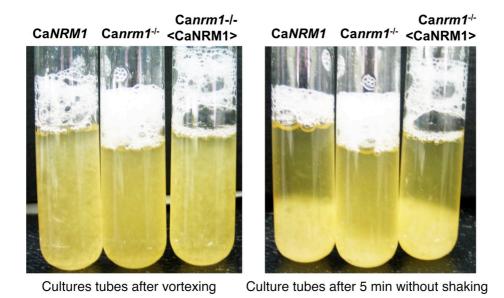


Fig. S5. Sedimentation. The indicated strains were grown overnight in YPD, then diluted 1:10 in YPD + 10% serum and grown for 2 h at 30°C. The test tubes were photographed right after retrieval from the roller drum and vigorous vortexing, or after having been left standing 5 min on the bench. The strains used are KC403, KC435, KC436 (all Ura+).

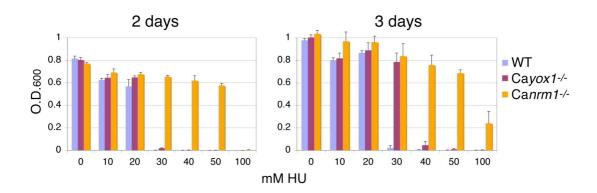


Fig. S6. Effect of Ca*YOX1* **deletion on HU resistance.** The Ca*YOX1* deletion mutant and its isogenic wild-type strain, as well as the Ca*NRM1* deletion strains for comparison, were grown in quadruplicate at the indicated concentrations of HU at 30°C. O. D. was measured after 2 and 3 days, as indicated.