

**Table S1:** Strains used in this study.

Strain Name	Alias	Genotype	Source
ScLC382	<i>S. cerevisiae</i> Sigma	<i>ura3Δ</i>	Kohler Lab
CkLC571	<i>Candida krusei</i> 1680	Clinical isolate	Heitman Lab
CILC572	<i>C. lusitaniae</i> (ATCC® 42720™)	Clinical isolate	ATCC
CtLC575	<i>C. tropicalis</i> 1685	Clinical isolate	Heitman Lab
CdLC743	<i>C. dubliniensis</i> 36	Clinical isolate	(1)
CaLC5083	<i>C. auris</i> Ci6684	Clinical isolate	(2)
CpLC6144	<i>Candida parapsilosis</i> (ATCC® 22019™)	Clinical isolate	ATCC
CaLC239	SN95	<i>arg/arg4 his1/his1</i> <i>URA3/ura3::imm<sup>434</sup></i> <i>IRO1/iro1::imm<sup>434</sup></i>	(3)
CaLC555	CAI4 <i>cyr1Δ/cyr1Δ</i>	<i>ura3::imm<sup>434</sup>/ura3::imm<sup>434</sup></i> <i>cyr1::hisG-URA3-hisG/cyr1::hisG</i>	(4)
CaLC563	CAI4 <i>efg1Δ/efg1Δ</i>	<i>ura3::imm<sup>434</sup>/ura3::imm<sup>434</sup></i> <i>efg1::hisG/efg1::hisG-URA3-hisG</i>	(5)
CaLC564	CAI4 <i>ras1Δ/ras1Δ</i>	<i>ura3::imm<sup>434</sup>/ura3::imm<sup>434</sup></i> <i>ras1::hisG/ras1::hph</i>	(6)
CaLC914	CAI4 <i>cph1Δ/cph1Δ</i>	<i>ura3::imm<sup>434</sup>/ura3::imm<sup>434</sup></i> <i>cph1::hisG/cph1::hisG-URA3-hisG</i>	(7)
CaLC922	CAI4 <i>HSP70p-lacZ</i>	<i>ura3::imm<sup>434</sup>/ura3::imm<sup>434</sup></i> <i>HSP70/HSP70p-lacZ::URA3</i>	(8)
CaLC1566	SN152 <i>ume6Δ/ume6Δ</i>	<i>ume6::C. maltosa LEU2/ume6::C. dubliniensis HIS1 arg4::ARG4/arg4</i> <i>leu2/leu2 his1/his1</i> <i>ura3::imm<sup>434</sup>/URA3</i> <i>iro1::imm<sup>434</sup>/IRO1</i>	(9)
CaLC2445	CAI4 <i>cek1Δ/cek1Δ</i>	<i>ura3/ura3 cek1::hisG-URA3-hisG/cek1::hisG</i>	(10)
CaLC2560/ CaLC2561	SN95 <i>tec1Δ/tec1Δ</i>	<i>arg4/arg4 his1/his1</i> <i>URA3/ura3::imm<sup>434</sup></i> <i>IRO1/iro1::imm<sup>434</sup></i> <i>tec1::FRT/tec1::FRT</i>	(11)
CaLC2676	SN95 <i>bcr1Δ/bcr1Δ</i>	<i>arg4 /arg4 his1/his1</i> <i>URA3/ura3::imm<sup>434</sup></i> <i>IRO1/iro1::imm<sup>434</sup></i> <i>bcr1::FRT/bcr1::FRT</i>	(11)

CaLC2737	SN152 <i>brg1Δ/brg1Δ</i>	<i>arg4/arg4 leu2/leu2 his1/his1</i> <i>URA3/ura3::imm<sup>434</sup></i> <i>IRO1/iro1::imm<sup>434</sup> brg1::C. albicans</i> <i>HIS1/brg1::C. albicans LEU2</i>	(12)
CaLC2740	SN152 (Homann library WT)	<i>arg4/arg4 leu2/leu2::C. albicans</i> <i>LEU2 his1/his1::C. albicans HIS1</i> <i>URA3/ura3::imm<sup>434</sup></i> <i>IRO1/iro1::imm<sup>434</sup></i>	(12)
CaLC2742	CAF2-1	<i>ura3::imm<sup>434</sup>/URA3</i>	(13)
CaLC2897	SN95 <i>flo8Δ/flo8Δ</i>	<i>arg4/arg4 his1/his1</i> <i>URA3/ura3::imm<sup>434</sup></i> <i>IRO1/iro1::imm<sup>434</sup> flo8::FRT/flo8::FRT</i>	(14)
CaLC3067	SN95 Hsp104-GFP	<i>arg/arg4 his1/his1</i> <i>URA3/ura3::imm<sup>434</sup></i> <i>IRO1/iro1::imm<sup>434</sup> HSP104/HSP104-GFP</i>	(15)
CaLC3431	SN152 <i>ace2Δ/ace2Δ</i>	<i>arg4/arg4 leu2/leu2 his1/his1</i> <i>URA3/ura3::imm<sup>434</sup></i> <i>IRO1/iro1::imm<sup>434</sup> ace2::C. albicans</i> <i>HIS1/ace2::C. albicans LEU2</i>	(12)
CaLC4506	SN95 Nop1-GFP	<i>arg4 /arg4 his1 /his1</i> <i>URA3/ura3::imm<sup>434</sup></i> <i>IRO1/iro1::imm<sup>434</sup> NOP1-GFP-</i> <i>HIS/NOP1</i>	(14)
CaLC5039	SN152 <i>tetO-HSF1/tetO-HSF1</i> <i>ume6Δ/ume6Δ</i> (preflip)	<i>ume6::C. maltosa LEU2/ume6::C. dubliniensis</i> <i>HIS1 arg4::ARG4/arg4 leu2/leu2 his1/his1 ura3</i> <i>::imm<sup>434</sup>/URA3 iro1 ::imm<sup>434</sup>/IRO1</i> <i>NEUT5L-FRT-ENO1p-Cas9-NAT-snR52p-HSF1p sgRNA-FRT/NEUT5L</i> <i>TAR-tetO-HSF1/TAR-tetO-HSF1</i>	(16)
CaLC5084	SN152HLA (WT)	<i>arg4::hisG/ARG4, his1::hisG/HIS1,</i> <i>leu2::hisG/LEU2</i> <i>ura3::λimm434::URA3-IRO1/ura3::</i> <i>λimm434</i>	(17)
CaLC5088	SN152 <i>tpk1Δ/tpk1Δ</i> <i>tpk2Δ/tpk2Δ</i>	<i>ura3::λimm434::URA3-IRO1/ura3::</i> <i>λimm434, tpk2::HIS1/ tpk2::ARG4,</i> <i>tpk1::LEU2/ tpk1::FRT</i>	(17)
CaLC5275	SN250 <i>tetO-HSF1/tetO-HSF1</i> (preflip)	<i>arg4/arg4 his1/his1</i> <i>leu2::C.dubliniensis</i> <i>HIS1/leu2::C.maltosa LEU2</i> <i>URA3/ura3::imm<sup>434</sup></i> <i>IRO1/iro1::imm<sup>434</sup></i>	(17)

		<i>NEUT5L-FRT-ENO1p-Cas9-NAT-snr52p-HSF1p sgRNA-FRT/NEUT5L TAR-tetO-HSF1/TAR-tetO-HSF1</i>	
CaLC5277	SN152 <i>tetO-HSF1/tetO-HSF1 brg1Δ/brg1Δ</i> (preflip)	<i>arg4/arg4 leu2/leu2 his1/his1 URA3/ura3::imm<sup>434</sup> IRO1/iro1 ::imm<sup>434</sup> brg1::C. albicans HIS1/brg1::C. albicans LEU2 NEUT5L-FRT-ENO1p-Cas9-NAT-snr52p-HSF1p sgRNA-FRT/NEUT5L TAR-tetO-HSF1/TAR-tetO-HSF1</i>	(17)
CaLC6152	CAF2-1 <i>tetO-RPT5/tetO-RPT5</i>	<i>ura3::imm<sup>434</sup>/URA3 TAR-FRT::tetO-RPT5/ TAR-FRT::tetO-RPT5</i>	This study
CaLC6153	CAI4 <i>tetO-RPT5/tetO-RPT5 efg1Δ/efg1Δ</i>	<i>ura3::imm<sup>434</sup>/ura3::imm<sup>434</sup> efg1::hisG/efg1::hisG-URA3-hisG TAR-FRT::tetO-RPT5/ TAR-FRT::tetO-RPT5</i>	This study
CaLC6196	CAI4 <i>ras1Δ/ras1Δ</i>	<i>ura3::imm<sup>434</sup>/ura3::imm<sup>434</sup> ras1::hisG/ras1::hph TAR-FRT::tetO-RPT5/ TAR-FRT::tetO-RPT5</i>	This study
CaLC6227	CAI4 <i>cyr1Δ/cyr1Δ</i>	<i>ura3::imm<sup>434</sup>/ura3::imm<sup>434</sup> cyr1::hisG-URA3-hisG/cyr1::hisG TAR-FRT::tetO-RPT5/ TAR-FRT::tetO-RPT5</i>	This study
CaLC6106	GRACE parent strain (CaSS1)	<i>ura3::imm<sup>434</sup>/ura3::imm<sup>434</sup> his3::hisG/his3::hisG leu2::tetR-GAL4AD-URA/LEU2</i>	(18)
GRACE strain	<i>tetO-PRE1/pre1Δ</i>	As GRACE parent <i>SAT1::tetO-PRE1/pre1::HIS3</i>	(18)
GRACE strain	<i>tetO-PRE2/pre2Δ</i>	As GRACE parent <i>SAT1::tetO-PRE2/pre2::HIS3</i>	(18)
GELC0586	<i>tetO-PRE3/pre3Δ</i>	As GRACE parent <i>SAT1::tetO-PRE3/pre3::HIS3</i>	This Study
GELC0394	<i>tetO-PRE4/pre4Δ</i>	As GRACE parent <i>SAT1::tetO-PRE4/pre4::HIS3</i>	This Study
GRACE strain	<i>tetO-PRE5/pre5Δ</i>	As GRACE parent <i>SAT1::tetO-PRE5/pre5::HIS3</i>	(18)
GRACE strain	<i>tetO-PRE6/pre6Δ</i>	As GRACE parent <i>SAT1::tetO-PRE6/pre6::HIS3</i>	(18)
GRACE strain	<i>tetO-PRE7/pre7Δ</i>	As GRACE parent <i>SAT1::tetO-PRE7/pre7::HIS3</i>	(18)
GRACE strain	<i>tetO-PRE8/pre8Δ</i>	As GRACE parent <i>SAT1::tetO-PRE8/pre8::HIS3</i>	(18)

GELC0910	<i>tetO-PRE9/pre9Δ</i>	As GRACE parent <i>SAT1::tetO-PRE9/pre9Δ::HIS3</i>	This Study
GELC0118	<i>tetO-PRE10/pre10Δ</i>	As GRACE parent <i>SAT1::tetO-PRE10/pre10Δ::HIS3</i>	This Study
GRACE strain	<i>tetO-PUP1/pup1Δ</i>	As GRACE parent <i>SAT1::tetO-PUP1/pup1::HIS3</i>	(18)
GRACE strain	<i>tetO-PUP2/pup2Δ</i>	As GRACE parent <i>SAT1::tetO-PUP2/pup2::HIS3</i>	(18)
GELC0583	<i>tetO-PUP3/pup3Δ</i>	As GRACE parent <i>SAT1::tetO-PUP3/pup3::HIS3</i>	This study
GRACE strain	<i>tetO-SCL1/scl1Δ</i>	As GRACE parent <i>SAT1::tetO-SCL1/scl1::HIS3</i>	(18)
GRACE strain	<i>tetO-RPN3/rpn3Δ</i>	As GRACE parent <i>SAT1::tetO-RPN3/rpn3::HIS3</i>	(18)
GRACE strain	<i>tetO-RPN5/rpn5Δ</i>	As GRACE parent <i>SAT1::tetO-RPN5/rpn5::HIS3</i>	(18)
GRACE strain	<i>tetO-RPN6/rpn6Δ</i>	As GRACE parent <i>SAT1::tetO-RPN6/rpn6::HIS3</i>	(18)
GRACE strain	<i>tetO-RPN7/rpn7Δ</i>	As GRACE parent <i>SAT1::tetO-RPN7/rpn7::HIS3</i>	(18)
GRACE strain	<i>tetO-RPN8/rpn8Δ</i>	As GRACE parent <i>SAT1::tetO-RPN8/rpn8::HIS3</i>	(18)
GELC0058	<i>tetO-RPN9/rpn9Δ</i>	As GRACE parent <i>SAT1::tetO-RPN9/rpn9::HIS3</i>	This Study
GELC0588	<i>tetO-SEM1/sem1Δ</i>	As GRACE parent <i>SAT1::tetO-SEM1/SEM1::HIS3</i>	This Study
GRACE strain	<i>tetO-RPN11/rpn11Δ</i>	As GRACE parent <i>SAT1::tetO-RPN11/rpn11::HIS3</i>	(18)
GRACE strain	<i>tetO-RPN12/rpn12Δ</i>	As GRACE parent <i>SAT1::tetO-RPN12/rpn12::HIS3</i>	(18)
GRACE strain	<i>tetO-RPT1/rpt1Δ</i>	As GRACE parent <i>SAT1::tetO-RPT1/rpt1::HIS3</i>	(18)
GELC0395	<i>tetO-RPT2/rpt2Δ</i>	As GRACE parent <i>SAT1::tetO-RPT2/rpt2::HIS3</i>	This Study
GRACE strain	<i>tetO-RPT3/rpt3Δ</i>	As GRACE parent <i>SAT1::tetO-PR26/pr26::HIS3</i>	(18)
GRACE strain	<i>tetO-RPT4/rpt4Δ</i>	As GRACE parent <i>SAT1::tetO-RPT4/rpt4::HIS3</i>	(18)
GRACE strain	<i>tetO-RPT5/rpt5Δ</i>	As GRACE parent <i>SAT1::tetO-RPT5/rpt5::HIS3</i>	(18)
GRACE strain	<i>tetO-RPT6/rpt6Δ</i>	As GRACE parent <i>SAT1::tetO-RPT6/rpt6::HIS3</i>	(18)

GRACE strain	<i>tetO-RPN1/rpn1Δ</i>	As GRACE parent <i>SAT1::tetO-RPN1/rpn1::HIS3</i>	(18)
GRACE strain	<i>tetO-RPN2/rpn2Δ</i>	As GRACE parent <i>SAT1::tetO-RPN2/rpn2::HIS3</i>	(18)
GELC0260	<i>tetO-RPN10/rpn10Δ</i>	As GRACE parent <i>SAT1::tetO-RPN10/rpn10::HIS3</i>	This study
GRACE strain	<i>tetO-RPN13/rpn13Δ</i>	As GRACE parent <i>SAT1::tetO-RPN13/rpn13::HIS3</i>	(18)
HELC0260	<i>RPN10/rpn10Δ</i>	As GRACE parent <i>RPN10/rpn10::HIS3</i>	This study
HELC0583	<i>PUP3/pup3Δ</i>	As GRACE parent <i>PUP3/pup3::HIS3</i>	This study
HELC0586	<i>PRE3/pre3Δ</i>	As GRACE parent <i>PRE3/pre3::HIS3</i>	This Study
HELC0588	<i>SEM1/sem1Δ</i>	As GRACE parent <i>SEM1/SEM1::HIS3</i>	This Study
HELC0910	<i>PRE9/pre9Δ</i>	As GRACE parent <i>PRE9/pre9Δ::HIS3</i>	This Study

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