Supplementary Table 4: Gene dispensability, copy number, and species distribution

	Copy number in fission yeast (*n*):budding yeast (*m*)							
	Gene copy number of fission yeast compared to budding yeast		***n*=1, *m*≥1 (single copy in fission yeast)**		***n*>1, *m*≥1 (duplicated in fission yeast)**		***n*≥1, *m*=0 (not in budding yeast)**	
	Descriptor	**Total**	**one:one**	**one:many**	**many:one**	**many:many**	**one:none**	**many:none**
Species distribution	**gene number essential|non-essential**	4,836 1260|3576 26.1 %	2,534 1011|1523 39.9 %	307 77|230 25.1 %	395 41|354 10.4 %	460 36|424 7.8 %	968 85|883 8.7 %	172 10|162 6.1 %
	c_e (conserved only in eukaryotes, must include	2,824 883|1941 31.3%	1,764 748|1016 42.4 %	179 47|132 26.3 %	237 28|209 11.8 %	238 17|221 7.1%	363 38|325 10.5%	43 5|38 11.6 %
	c _pe (conserved in eukaryotes, must include human and	668 207|461 31.0%	367 161|206 43.9%	64 24|40 37.5%	85 12|73 14.1%	238 17|221 7.1%	37 0|37 0%	11 0|11 0%
	c_f (conserved in fungi only)	553 91|462 16.5%	290 71|219 24.5 %	33 4|29 12.1%	40 1|39 2.5%	57 7|50 12.3%	96 6|90 6.3%	37 2|35 5.4%
	c_v (conserved in variable phyla e.g. fungi and bacteria, fungi	346 39|307 11.3%	113 31|82 27.4%	31 2|29 6.5%	33 0|33 0%	61 2|59 3.3%	84 3|81 3.6%	24 1|23 4.2%
	s_p (species specific, found only in fission	445 40|405 9.0%	0	0	0	0	388 38|350 9.8 %	57 2|55 3.5 %

Species distribution of essential and non-essential genes in fission yeast (c_e =conserved eukaryotes, c_pe= conserved prokaryotes and eukaryotes, c_f= conserved fungal, c_v= conserved variable, s_p= specific pombe) and their copy number in fission and budding yeast; one to one is single copy in both species, one to many is single copy in fission yeast and one or more paralogues in budding yeast, one to none is single copy in fission yeast, not present in budding yeast, many to one is one or more paralogues in fission yeast and single copy in budding yeast, many to many is one or more paralogues in both yeasts and many to none is one or more paralogues in fission yeast, not present in budding yeast.