

Supplementary Material

Molecular mechanisms for environmentally induced and evolutionarily rapid redistribution (plasticity) of meiotic recombination

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Table S1. Genotypes of fission yeast strains

Table S2. DNA sequences of PCR primers

Table S1. Genotypes of fission yeast strains

Strain	Genotype ^a
WSP 0004	<i>h+ ade6-M210</i>
WSP 0006	<i>h+ ade6-M375</i>
WSP 0016	<i>h- ade6-M210</i>
WSP 0018	<i>h- ade6-M26</i>
WSP 0022	<i>h- ade6-M375 leu1-32</i>
WSP 2650	<i>h+ ade6-M26 atf1D15::ura4F his3-D1 leu1-32 ura4-D18</i>
WSP 2651	<i>h- ade6-M210 atf1D15::ura4F his3-D1 leu1-32 ura4-D18</i>
WSP 2655	<i>h+ ade6-M26 pcr1D1::his3F his3-D1 leu1-32 ura4-D18</i>
WSP 2657	<i>h- ade6-M210 pcr1D1::his3F his3-D1 leu1-32 ura4-D18</i>
WSP 2659	<i>h+ ade6-M375 pcr1D1::his3F his3-D1 leu1-32 ura4-D18</i>
WSP 5814	<i>h- ade6-M26</i>
WSP 5815	<i>h+ ade6-M26</i>
WSP 5818	<i>h- ade6-M375</i>
WSP 6270	<i>h+ ade6-M210</i>
WSP 6540	<i>h+ ade6-4002 ura4-D18</i>
WSP 6573	<i>h+ ade6-4099 ura4-D18</i>
WSP 6577	<i>h- ade6-4099 ura4-D18</i>
WSP 6799	<i>h+ ade6-M26 rst2D::ura4F ura4-D18</i>
WSP 6806	<i>h- ade6-M210 rst2D::ura4F ura4-D18</i>
WSP 6807	<i>h+ ade6-M210 ura4-D18 leu1-32 rst2D::ura4+</i>
WSP 6811	<i>h+ ade6-4002 rst2D::ura4F ura4-D18</i>
WSP 6815	<i>h+ ade6-4099 rst2D::ura4F ura4-D18</i>
WSP 6890	<i>h+ ade6-M26 php2D::kanMX6</i>
WSP 7485	<i>h+ ade6-4002 atf1D15::ura4F his3-D1 ura4-D18</i>
WSP 7487	<i>h+ ade6-4099 atf1D15::ura4F his3-D1 ura4-D18</i>
WSP 7508	<i>h- ade6-4099 php2D::kanMX6</i>
WSP 7510	<i>h+ ade6-4002 php2D::kanMX6</i>
WSP 7519	<i>h- ade6-m210 php2D::kanMX6</i>
WSP 7520	<i>h+ ade6-m210 php2D::kanMX6</i>
WSP 7531	<i>h+ ade6-M210 php3D::kanMX6 ura4-D18</i>
WSP 7537	<i>h- ade6-4099 php3D::kanMX6</i>
WSP 7541	<i>h- ade6-M26 php3D::kanMX6</i>
WSP 7543	<i>h- ade6-4002 php3D::kanMX6</i>
WSP 7553	<i>h+ ade6-4002 pcr1D1::ura4F ura4-D18</i>
WSP 7558	<i>h+ ade6-4099 pcr1D1::ura4F ura4-D18</i>
WSP 7692	<i>h- ade6-4099 ura4-D18 leu1-32 rst2D::ura4+</i>
WSP 7704	<i>h+ ade6-4002 php5::kanMX6 ura4-D18</i>
WSP 7713	<i>h- ade6-M210 php5::kanMX6</i>
WSP 7715	<i>h+ ade6-M375 php5::kanMX6 ura4-D18</i>
WSP 7720	<i>h+ ade6-M26 php5::kanMX6</i>
WSP 7722	<i>h+ ade6-4099 php5::kanMX6 ura4-D18</i>
WSP 7816	<i>h- ade6-4002</i>
WSP 8011	<i>h+ ade6-M210 ura4-D18 leu1-32 rst2D::ura4+ (pREP3X-Rst2-LEU2)</i>
WSP 8013	<i>h- ade6-4099 ura4-D18 leu1-32 rst2D::ura4+ (pREP3X-Rst2-LEU2)</i>
WSP 8026	<i>h- ade6-M210 ura4-D18 leu1-32 pcr1D::ura4F</i>

WSP 8033 *h+ ade6-4099 ura4-D18 leu1-32 pcr1D::ura4F*
WSP 8040 *h+ ade6-4099 ura4-D18 leu1-32 pcr1D::ura4F (pREP3X-Rst2-LEU2)*
WSP 8045 *h- ade6-M210 ura4-D18 leu1-32 pcr1D::ura4F (pREP3X-Rst2-LEU2)*
WSP 8078 *h- ade6-4099 pat1-114 pcr1-HA::kanMX6*
WSP 8082 *h- ade6-4002 pat1-114 pcr1-HA::kanMX6*
WSP 8086 *h- ade6-4099*

^a Fission yeast nomenclature uses a “D” to designate deletion. These are referred to as “Δ” in the text and figures for the sake of clarity. The *ade6-M26* allele contains the *M26* DNA sequence motif; *ade6-4002* contains the *CCAAT* DNA sequence motif; *ade6-4099* contains the *Oligo-C* DNA sequence motif. See **Table 1** for DNA sequences and locations of all *ade6* alleles.

Table S2. DNA sequences of PCR primers

Amplicon	Primer ^a	Sequence	Purpose ^b
Cam1	<i>cam1+258F</i>	5'-GCCTACTGCCGCCGAATTAC-3'	RT-PCR
	<i>cam1+376R</i>	5'-GGCTTCGCGAACTTCCTCTTC-3'	RT-PCR
Php5	<i>php5+593F</i>	5'-GTCAAGCTCATATGTCTGCTACT-3'	RT-PCR
	<i>php5+678R</i>	5'-GGCATTGGAAACCCTTGATTG-3'	RT-PCR
Php3	<i>php3+200F</i>	5'-CATCTGAACAATGCACTCAAGAA-3'	RT-PCR
	<i>php3+253R</i>	5'-CTCTCTGTATTTGGTGAGAGAAATC-3'	RT-PCR
Php2	<i>php2+891F</i>	5'-TGTACTIONACCAGCGAGCGATA-3'	RT-PCR
	<i>php2+926R</i>	5'-CAATCTCGTACCCTTCAGGAATAG-3'	RT-PCR
Pcr1	<i>pcr1+126F</i>	5'-CAATGCTGCCTTTGAGCAATC-3'	RT-PCR
	<i>pcr1+207R</i>	5'-CAACCCTGATGGGCAAGTAAT-3'	RT-PCR
Atf1	<i>atf1+1037F</i>	5'-GTACTIONCAGCAACAGCCTATGT-3'	RT-PCR
	<i>atf1+1131R</i>	5'-CGTGGTTTTGGCGTAATGTTAAT-3'	RT-PCR
Rst2	<i>rst2+844F</i>	5'-GACGATGAAAGTTTTGGCTAGAATG-3'	RT-PCR
	<i>rst2+926R</i>	5'-CAATCTCGTACCCTTCAGGAATAG-3'	RT-PCR
Hsp9	<i>hsp9-299F</i>	5'-GCGCTCATTGGAAATAGCTTAC-3'	ChIP
	<i>hsp9-199R</i>	5'-GCTCGCTATCCAATCAGACAA-3'	ChIP
Cdc18	<i>cdc18+1310F</i>	5'-GGAAAGCTCAACATGACAACAC-3'	ChIP
	<i>cdc18+1412</i>	5'-GCACTIONAGCAGATTGGCTCATA-3'	ChIP
Ade6	<i>ade6+104F</i>	5'-CAGCAAATTCTCCTGCCAAAC-3'	ChIP
	<i>ade6+190R</i>	5'-GACAGTTCAACAATTGCATCGG-3'	ChIP

^a The number after each primer name indicates position of the 5' end of the primer relative to the first nucleotide in the start codon of the gene (+1). F, forward primer; R, reverse primer.

^b Purpose: RT-PCR, reverse-transcription PCR; ChIP, chromatin immunoprecipitation.