

Conditional Genetic Interactions of *RTT107*, *SLX4*, and *HRQ1* Reveal Dynamic Networks Upon DNA Damage in *S. Cerevisiae*

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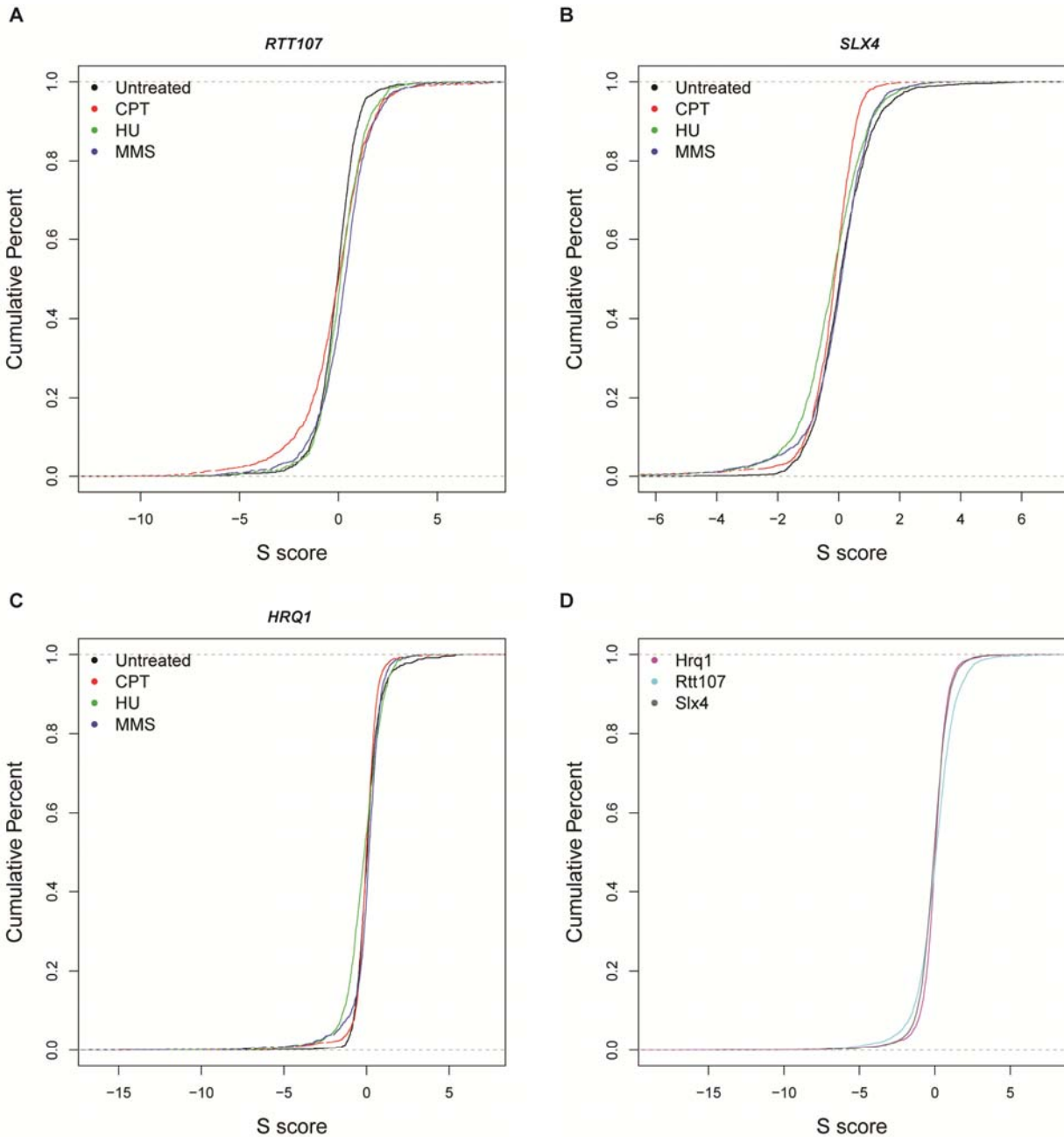


Figure S1. Distribution of S-scores differed between conditions or between query genes, as shown by cumulative probability plots. (A) S-scores for *RTT107*. Kolmogorov-Smirnov test, two-sided, p-values for untreated vs CPT = $6.4\text{e-}09$, untreated vs HU = $1.4\text{e-}07$, untreated vs MMS < $2.2\text{e-}16$. (B) S-scores for *SLX4*. Kolmogorov-Smirnov test, two-sided, p-values for untreated vs CPT = $5.6\text{e-}16$, untreated vs HU = $4.9\text{e-}10$, untreated vs MMS = 0.14. (C) S-scores for *HRQ1*. Kolmogorov-Smirnov test, two-sided, p-values for untreated vs CPT = $2.5\text{e-}03$, untreated vs HU < $2.2\text{e-}16$, untreated vs MMS = $7.0\text{e-}05$. (D) Combined S-scores for all conditions for each query gene. Kolmogorov-Smirnov test, two-sided, p-values for *RTT107* vs *HRQ1* < $2.2\text{e-}16$, *RTT107* vs *SLX4* < $2.2\text{e-}16$, *HRQ1* vs *SLX4* = $7.8\text{e-}16$.

Table S1 Yeast strains used in this study.

| Strain | Relevant Genotype | Background |
|---------------|---|-------------------|
| MKY1649 | <i>Mata his3Δ1 leu2Δ0 LYS2+ met15Δ0 ura3Δ0 Δcan1::MATαPr-HIS3 Δlyp1::MATαPr-LEU2 rtt107::KANMX6</i> | BY4742 |
| MKY1650 | <i>Mata his3Δ1 leu2Δ0 LYS2+ met15Δ0 ura3Δ0 Δcan1::MATαPr-HIS3 Δlyp1::MATαPr-LEU2 slx4::NATMX6</i> | BY4742 |
| MKY1651 | <i>Mata his3Δ1 leu2Δ0 LYS2+ met15Δ0 ura3Δ0 Δcan1::MATαPr-HIS3 Δlyp1::MATαPr-LEU2 hrq1::NATMX6</i> | BY4742 |
| MKY5 | <i>MATα ade2-1 can1-100 his3-11 leu2-3,112 trp1-1 ura3-1</i> | W303-1A |
| MKY7 | <i>MATα ade2-1 can1-100 his3-11 leu2-3,112 trp1-1 ura3-1</i> | W303-1A |
| MKY1652 | MKY5, <i>rtt107::KANMX6</i> | W303-1A |
| MKY1653 | MKY5, <i>dot1::HIS3</i> | W303-1A |
| MKY959 | MKY5, <i>rtt107::KANMX6 dot1::HIS3</i> | W303-1A |
| MKY1654 | MKY5, <i>bre1::HYGMX</i> | W303-1A |
| MKY1655 | MKY5, <i>rtt107::KANMX6 bre1::HYGMX</i> | W303-1A |
| MKY1656 | MKY5, <i>slx4::HYGMX</i> | W303-1A |
| MKY1657 | MKY5, <i>hrq1::NATMX6</i> | W303-1A |
| MKY1658 | MKY7, <i>slx4::NATMX6</i> | W303-1A |
| MKY1659 | MKY5, <i>mrc1::HIS3</i> | W303-1A |
| MKY1660 | MKY5, <i>mrc1::HIS3 rtt107::KANMX6</i> | W303-1A |
| MKY1661 | MKY5, <i>mrc1::HIS3 slx4::KANMX6</i> | W303-1A |
| MKY1662 | MKY5, <i>hst3::HIS3</i> | W303-1A |
| MKY1663 | MKY5, <i>hst4::HYGMX</i> | W303-1A |
| MKY1664 | MKY5, <i>hst3::HIS3 slx4::KANMX6</i> | W303-1A |
| MKY1665 | MKY5, <i>hst3::HIS3 rtt107::KANMX6</i> | W303-1A |
| MKY1666 | MKY5, <i>hst4::HYGMX rtt107::KANMX6</i> | W303-1A |
| MKY1667 | MKY5, <i>hst4::HYGMX slx4::KANMX6</i> | W303-1A |
| MKY1668 | MKY5, <i>hst3::HIS3 hst4::HYGMX</i> | W303-1A |
| MKY1669 | MKY5, <i>hst3::HIS3 hst4::HYGMX rtt107::KANMX6</i> | W303-1A |
| MKY1670 | MKY5, <i>lys2Δ hst3::HIS3 hst4::HYGMX slx4::KANMX6</i> | W303-1A |

File S1

Complete cE-MAP profiles. (Includes the original profiles with both drug concentrations and the averaged profiles.)

File S1 is available for download as an Excel file at <http://www.g3journal.org/lookup/suppl/doi:10.1534/g3.114.011205/-/DC1>