

SUPPLEMENTARY DATA

Supplementary Table 1. Primers used for RNA expression Analysis.

| Gene Name | Primer Pairs |
|----------------------|--------------------------------|
| <i>gadd45aa</i> | f-GAAAGGATGGACTCGGTGATTAA |
| <i>gadd45aa</i> | r-GGGACTTTGCAGCCTCGTAA |
| <i>gadd45ab</i> | f-GGCCACAGATGAGGAGGATGT |
| <i>gadd45ab</i> | r-CACTCGCAAGATATTGATGTCGTT |
| <i>apobec2a</i> | f-GAGTTTCAGAGATGGCCGATAGA |
| <i>apobec2a</i> | r-TCCTCTTTCTTGGCATCATTTTC |
| <i>apobec2b</i> | f-CAGGCTCACATGCCGAAGA |
| <i>apobec2b</i> | r-CAAGGGCTGGACGATGTGTA |
| <i>mbd4</i> | f-GAGCCAGGCGTGATAATCGT |
| <i>mbd4</i> | r- CGGCAAATACGGCAATGACT |
| <i>tet1</i> | f-CACGCCCACTCTTGCACTTT |
| <i>tet1</i> | r-GACACCCCCCACTTTTGGTT |
| <i>tet2</i> | f-TGATCGTCTCTACATGGA ACTAAGTGA |
| <i>tet2</i> | r-CCCTGACACGCACATGTTCT |
| <i>tet3</i> | f-CCCAGACTGCCCTGATTACC |
| <i>tet3</i> | r-TTGAGCCGTACCCGAAAGAT |
| <i>tdg</i> | f-AAATACGGCATCGGCTTCAC |
| <i>tdg</i> | r-CCACTAAGATTTTACCGCCTTCTC |
| <i>18S ref gene</i> | f-TCGCTAGTTGGCATCGTTTATG |
| <i>18S</i> | r-CGGAGGTTCGAAGACGATCA |
| <i>elfa ref gene</i> | f-CTTCTCAGGCTGACTGTGC |
| <i>elfa</i> | r-CCGCTAGCATTACCCTCC |
| <i>Rnap ref gene</i> | f-CCAGATTCAGCCGCTTCAAG |
| <i>rnap</i> | r-CAAACCTGGGAATGAGGGCTT |

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Supplementary Table 2. Primer sequences for q-PCR.

| Gene Name | Chromosomal Location of CGI | Primer Pairs |
|----------------|-----------------------------|--|
| <i>gcat</i> | chr3:23085523-23085903 | f-TACGTGTCAGCCTTGCTTTCTAGT r-TCAGGCGAGCACCGAAAC |
| <i>grtp1a</i> | chr17:320095-320443 | f-TCATCGGCGACCGACAA r-CGGGTCTTCGAGCTCAAAGT |
| <i>hnrnpa0</i> | chr14:40707997-40708674 | f-TCTTTCTTAGCAGCAGTCGAGTCT r-GACGTTTAGACCGCCAACGA |
| <i>uhrf1</i> | chr22:5550020-5550274 | f-AGCAATGACGGCGCTTATTC r-AGGACAGAGCGCGAGAGTTC |
| <i>abhd12</i> | chr17: 20988536-21030458 | f-CACACACTCCGTCGCTGAAC r-GTACTGCAGTCCTGCGCCTAT |
| <i>map1B</i> | chr5:33728247-33728561 | f-TCCACAGAGCAGCTCACTTCA r-AACCAGCGTCGCCATTCTC |
| <i>uba2</i> | chr25:12017457-12017689 | f-CAGAGGTCGCCAGTTAAACCT r-CGAGCAGCGGTTTGATCCT |
| <i>rac3a</i> | chr3:33491203-33491596 | f-TGGGGGAAATCGGAGTATTC r-ACCTCACGACAATAAAATCGCT |

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Supplementary Figure 1. Parp inhibition prevents the HG-induced regeneration defect. Representative images of regenerating fins (72 hours post amputation) from control (A), DM (B), DM + Parp Inhibitor (C) and Parp inhibitor alone (D). The amputations were performed 22 days post DM induction and the transection line is indicated by the black dotted line. All tissue above this line represents the new tissue outgrowth.

