

The figure displays 21 box plots, each representing a different DNA repair pathway. The y-axis for all plots is 'expression value'. The x-axis for all plots shows three groups: Mutated (blue), NonMutated (orange), and Normal (red). Each plot includes p-values for comparisons between the Mutated and NonMutated groups, and between the NonMutated and Normal groups. The pathways are as follows:

- Repair1_DNA_glycosylases**: $p < 2.22e-16$ (Mutated vs NonMutated), 0.00066 (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair2_Other_BER_and_strand_break_joining_factors**: $p < 2.22e-16$ (Mutated vs NonMutated), $9.2e-06$ (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair3_PARP_enzymes**: $p < 2.22e-16$ (Mutated vs NonMutated), $3.9e-07$ (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair4_Direct_reversal_of_damage**: $7.8e-07$ (Mutated vs NonMutated), 0.12 (Mutated vs Normal), $4.8e-13$ (NonMutated vs Normal).
- Repair5_Repair_of_DNA_topoisomerase_crosslinks**: $p < 2.22e-16$ (Mutated vs NonMutated), $2.8e-05$ (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair6_Mismatch_excision_repair**: $p < 2.22e-16$ (Mutated vs NonMutated), 0.025 (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair7_xeroderma_pigmentosum**: $p < 2.22e-16$ (Mutated vs NonMutated), 0.00074 (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair8_TFIIH**: $p < 2.22e-16$ (Mutated vs NonMutated), 0.0015 (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair9_NER_related**: $2.6e-09$ (Mutated vs NonMutated), 0.66 (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair10_Homologous_recombination**: $p < 2.22e-16$ (Mutated vs NonMutated), $9.5e-14$ (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair11_Fanconi_anemia**: $p < 2.22e-16$ (Mutated vs NonMutated), $p < 2.22e-16$ (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair12_Non_homologous_end_joining**: $p < 2.22e-16$ (Mutated vs NonMutated), $1.4e-07$ (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair13_Modulation_of_nucleotide_pools**: $p < 2.22e-16$ (Mutated vs NonMutated), $4e-05$ (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair14_DNA_polymerases**: $p < 2.22e-16$ (Mutated vs NonMutated), $3e-10$ (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair15_Editing_and_processing_nucleases**: $p < 2.22e-16$ (Mutated vs NonMutated), $6.5e-12$ (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair16_Ubiquitination_and_modification**: $p < 2.22e-16$ (Mutated vs NonMutated), $3e-06$ (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair17_Chromatin_Structure**: $p < 2.22e-16$ (Mutated vs NonMutated), $5.2e-09$ (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair18_Genes_defective_in_diseases_associated_with**: $p < 2.22e-16$ (Mutated vs NonMutated), $5.7e-14$ (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair19_Other_identified_genes_with_known_or_suspe**: $p < 2.22e-16$ (Mutated vs NonMutated), $1.8e-11$ (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair20_Other_conserved_DNA_damage_response_ge**: $p < 2.22e-16$ (Mutated vs NonMutated), $7.8e-08$ (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).
- Repair21_AllGenes**: $p < 2.22e-16$ (Mutated vs NonMutated), $8.9e-13$ (Mutated vs Normal), $p < 2.22e-16$ (NonMutated vs Normal).