

The figure displays 25 box plots arranged in a 5x5 grid, comparing the expression values of various DNA repair genes between two groups: High\_expression (blue boxes) and Low\_expression (orange boxes). Each plot includes a Wilcoxon test p-value and a bracket indicating a significant difference ( $p < 2.22e-16$ ) between the two groups. The genes are:

- Repair1\_DNA\_glycosylases
- Repair2\_Other\_BER\_and\_strand\_break\_joining\_factors
- Repair3\_PARP\_enzymes
- Repair4\_Direct\_reversal\_of\_damage
- Repair5\_Repair\_of\_DNA\_topoisomerase\_crosslinks
- Repair6\_Mismatch\_excision\_repair
- Repair7\_xeroderma\_pigmentosum
- Repair8\_TFIIH
- Repair9\_NER\_related
- Repair10\_Homologous\_recombination
- Repair11\_Fanconi\_anemia
- Repair12\_Non\_homologous\_end\_joining
- Repair13\_Modulation\_of\_nucleotide\_pools
- Repair14\_DNA\_polymerases
- Repair15\_Editing\_and\_processing\_nucleases
- Repair16\_Ubiquitination\_and\_modification
- Repair17\_Chromatin\_Structure
- Repair18\_Genes\_defective\_in\_diseases\_associated\_with
- Repair19\_Other\_identified\_genes\_with\_known\_or\_suspected\_role\_in\_DNA\_damage\_response
- Repair20\_Other\_conserved\_DNA\_damage\_response\_genes
- Repair21\_AllGenes

Each plot shows the expression value on the y-axis (ranging from 0 to 5) and the group on the x-axis. The High\_expression group is represented by blue boxes, and the Low\_expression group is represented by orange boxes. The p-value for each plot is  $p < 2.22e-16$ .