DIPG or DMG, HR P/LP vs. no P/LP exposure difference sig etiology **MMR** Non-Repair Other repair SBS5 SBS85 SBS86 SBS20 SBS90 SBS39 SBS84 SBS11 SBS31 SBS31 SBS9 \$B\$21 \$B\$32 \$B\$13 \$B\$30 \$B\$26 \$B\$26 \$B\$35 SBS1 SBS14

COSMIC v3.3 signature