



Supplementary figure 2:

ProMisE algorithm: samples first were assessed via immunohistochemistry (IHC) for the presence of mismatch repair proteins PMS2 and MSH6 with loss/deficient tumors categorized as MMRd (n= 103). Next, tumors were assessed for mutations in polymerase-E exonuclease domain, exons 9–14 (*POLE*mut, n = 40), and finally for aberrant expression of p53 by IHC yielding p53abn (n = 52) and p53wt (NSMP, n=207).