Proposed mechanism through which Rac1/DOCK2 and FLT3/ITD cooperate to regulate DNA damage response in FLT3/ITD leukemic cells FLT3 FLT3 Cell membrane FLT3 TKIs **GDP** RAC1 ERK NSC23766 GTP RAC1 STAT5 STAT5 STAT5 PIM-1 MK8776 ERK **ERK MYB** FLT3 CHK1 B02 Cytoplasm RAD51 WEE1 MK1775 **Nucleus** ► cell cycle arrest/DNA repair Ara-C **▶** apoptosis

DNA damage