Supplemental Figure 1. The ODN Biochip: principles. (A) Biotinylated Support ODNs are spotted on streptavidin glass slide, through a piezo dispense capillary. At that point, no fluorescence can be recorded after scanner reading, but the localization of the spots can be discerned (blue circles). (B) A first step of hybridization of the long and lesion ODNs is performed for 1 h at $37^{\circ} \mathrm{C}$ in vitro, to form the long/lesion ODN complex. The long/lesion ODN complex is hybridized to the support ODN during a second step of hybridization on the slide. The fluorescence for each spot is then maximal. (C) Finally, the excision reaction is performed by incubating nuclear extracts on the slides. The residual fluorescence is quantified and proportional to the excision capacity of the nuclear extract.

## Supplemental Figure S1




Supplemental Figure 2. Influence of SS on cell survival. Effects on cell survival after application of a range concentrations of SS during 72h for Keratinocytes obtained from (S2A) young donor or (S2B) elderly donor. Cell survival was determined by the MTT assay and data were presented as relative to non-treated ( 0 nM ) control cells ( $\mathrm{n}=3$ independent measurements for each group age).

## Supplemental Figure S2

## S2A



S2B


