The consequences of low and high doses of ionizing radiations on human primary hematopoietic stem/progenitor cells (HSPC)

**Low: 20 mGy**
- Doses of ionizing radiations
- Oxidative stress
  - NAC treatment
  - 8-oxo-dG lesions
  - NRF2 traslocation into the nucleus
- DNA damage response (DDR)
  - p38MAPK activation

**High: 2.5 Gy**
- Doses of ionizing radiations
- Oxidative stress
  - ROS
  - ΔΨ
- DNA damage response (DDR)
  - SB203580 or NAC treatment
  - DNA double strand breaks
  - Increase of γH2AX and 53BP1 loci
  - Increase of p53 and ATM phosphorylation

↓ Self-renewal

↑ Cell death

Henry et al., Haematologica, 2020