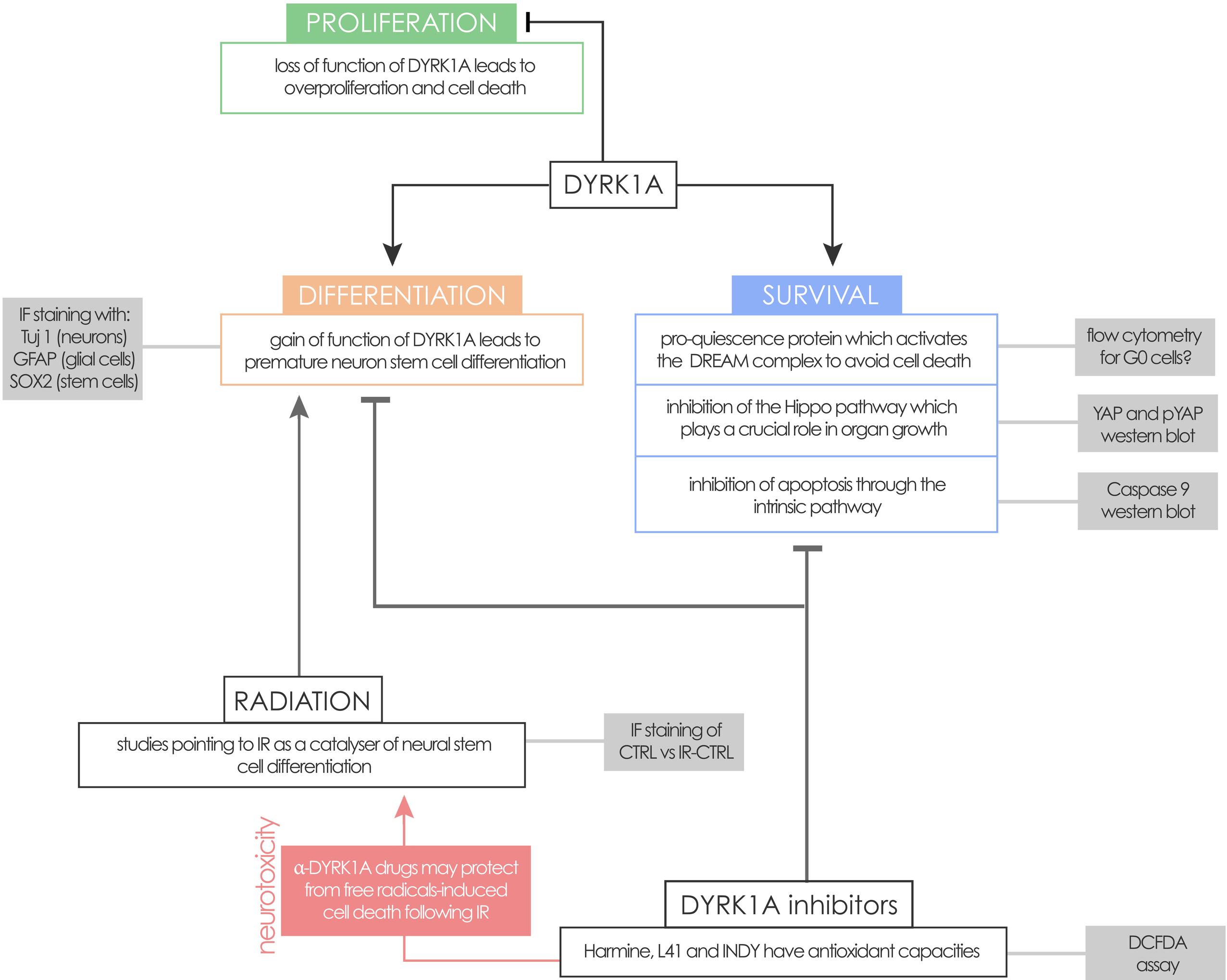
PROLIFERATION
loss of function of DYRK1A leads to overproliferation and cell death
DYRK1A
DIFFERENTIATION
IF staining with: Tuj 1 (neurons) GFAP (glial cells) SOX2 (stem cells)
gain of function of DYRK1A leads to premature neuron stem cell differentiation
SURVIVAL
pro-quiescence protein which activates the DREAM complex to avoid cell death
flow cytometry for G0 cells?
inhibition of the Hippo pathway which plays a crucial role in organ growth
YAP and pYAP western blot
inhibition of apoptosis through the intrinsic pathway
Caspase 9 western blot
RADIATION
studies pointing to IR as a catalyser of neural stem cell differentiation
IF staining of CTRL vs IR-CTRL
neurotoxicity
α-DYRK1A drugs may protect from free radicals-induced cell death following IR
DYRK1A inhibitors
Harmine, L41 and INDY have antioxidant capacities
DCFDA assay