Differences between rodent and human NSC in vitro models

**Characterisation**
- Surface markers: CD95, MHC class I, CD34

**Growth**
- Population doublings

**Differentiation**
- Oligodendrocyte generation

**Cytokine signalling**
- Response to LIF and CNTF

**Growth factor signalling**
- Response to PDGF

**Telomeres**
- Length

**Telomerase**
- Expression level

**Sensitivity**
- Human vs. Rodent

**Human**
- Expressed
- Over 40
- Low
- Neuronal survival
- Short
- Low
- More sensitive to chemicals affecting proliferation and neurite growth

**Rodent**
- Not expressed
- Under 10
- High
- Astroglia differentiation
- Increases neuronal differentiation
- Long
- High
- More sensitive to chemicals inducing apoptosis

References:
- Kiassen et al. [24]
- Ostenfeld et al. [26]
- Ostenfeld et al. [26]
- Gelli et al. [25]
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- Ostenfeld et al. [27]
- Ostenfeld et al. [27]
- Culbreth et al. [28]
- Harrill et al. [29]