



Figure Legend. Hutchinson-Gilford Progeria induced-pluripotent stem cell line HGMDFN090 iPS1B exhibits characteristics of pluripotency. (A-D) HGMDFN090 iPS1B cells express markers for pluripotency, SSEA4, Tra-1-81, Tra-1-60, and alkaline phosphatase. (E-G') In vitro differentiation of HGADFN003 iPS1B cells shows that it has the capacity to differentiate to cells of all 3-germ layers, β III-tubulin (ectoderm), smooth-muscle actin (mesoderm), AFP (endoderm). (H) In vivo differentiation of HGMDFN090 iPS1B cells shows that it has the capacity to differentiate to tissues of all 3-germ layers, neural epithelium (ectoderm), cartilage (mesoderm), Gut-like epithelium (endoderm) (I-I') HGMDFN090 iPS1B cells exhibit repressed Lamin A/C expression in undifferentiated cells but detectable expression in differentiated cells at the border of the colony. (J) The HGMDFN090 iPS1B cell line exhibits normal karyotype.