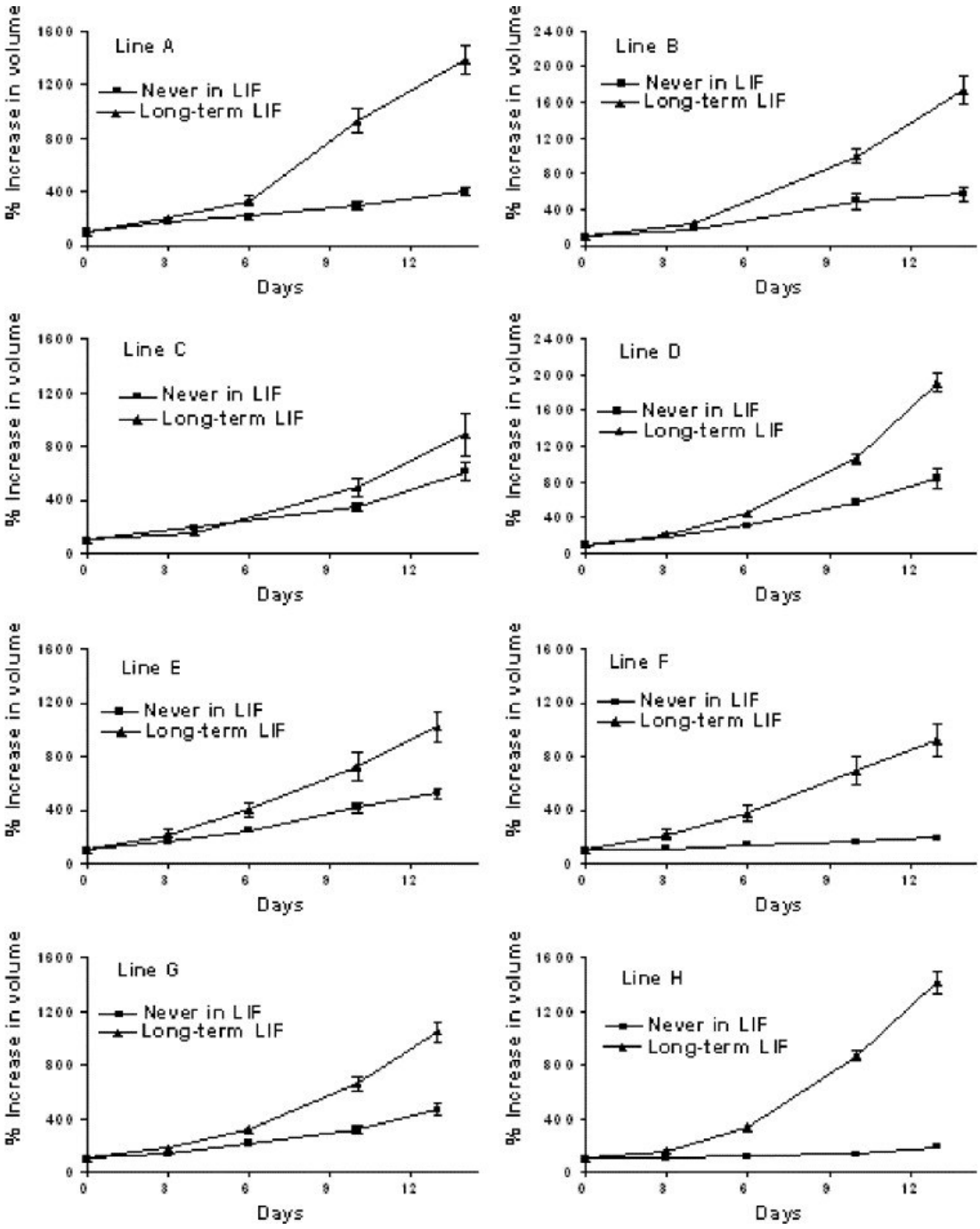
Human progenitor cells isolated from the developing cortex undergo decreased neurogenesis and eventual senescence following expansion in vitro

Wright, L.S.; Prowse, K.R.; Wallace, K.; Linskens, Maarten; Svendsen, C.N.

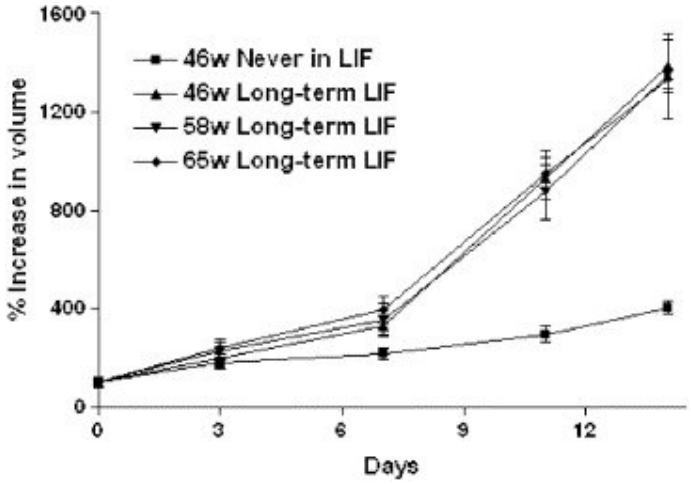
Published in:
Experimental Cell Research

DOI:
10.1016/j.yexcr.2006.03.012

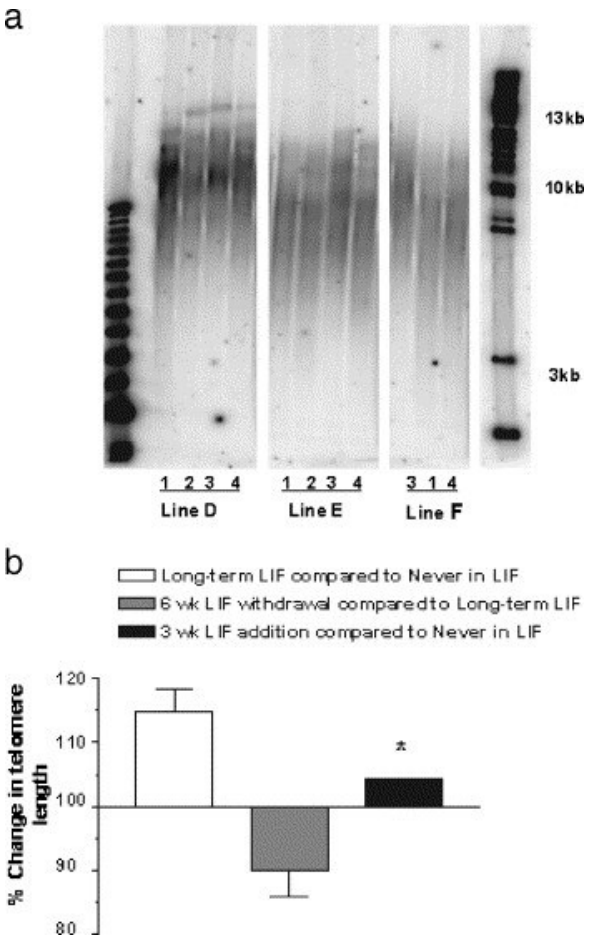
Publication date:
2006



Supplementary Fig. 1. Growth rates for individual hNPC lines. Growth rates were determined at 30 weeks of culture by measuring increases in sphere volume for long-term LIF hNPC lines A–H and compared to sister cultures grown in media supplemented with EGF (never in LIF). Individual spheres ($N = 10$) were selected, diameters measured every 3 to 4 days for 14 days, sphere and data expressed as average increase in cell volume ± SEM.



Supplementary Fig. 2. Effects of LIF on growth rate for long-term hNPC line A. Growth rates were determined by measuring increases in sphere volume for long-term LIF hNPC line A and compared to sister cultures grown in media supplemented with EGF (never in LIF). Individual spheres ($N = 8$) from long-term LIF-treated line A at 46, 58 and 65 weeks of culture and Line A (never in LIF) at 46 weeks were selected, and diameters measured every 3 to 4 days for 14 days. Data expressed as average increase in cell volume ± SEM.



Supplementary Fig. 3. Effects of LIF on telomere length. (a) Autoradiogram for TRF assessment in hNPC lines D, E and F for (1) cultures grown solely in EGF, (2) cultures with LIF added for 3 weeks following supplementation solely in EGF for 30 weeks, (3) long-term LIF-treated cultures and (4) cultures withdrawn from LIF for 6 weeks from long-term LIF-treated cultures after 30 weeks in vitro. Note that due to the slow growth of Line F (Never in LIF), there was insufficient material for the LIF supplementation culture. (b) Differences in telomere length across lines D, E and F for the treatments described above were determined by calculating the average percent change among the three lines for the following comparisons: long-term LIF cultures compared to never in LIF (white bar); cultures withdrawn from LIF for 6 weeks compared to long-term LIF (gray bar); and LIF addition for 3 weeks to naïve cultures compared to cultures never in LIF (black bar). Data expressed as average percent change ± SEM. *Indicates because there was not enough sample remaining for line F, only two lines (D and E) were averaged for this data point.