

University of Groningen

**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](https://doi.org/10.1016/j.yexcr.2006.03.012)

**IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.**

*Document Version*  
Publisher's PDF, also known as Version of record

*Publication date:*  
2006

[Link to publication in University of Groningen/UMCG research database](#)

*Citation for published version (APA):*

Wright, L. S., Prowse, K. R., Wallace, K., Linskens, M. H. K., & Svendsen, C. N. (2006). Human progenitor cells isolated from the developing cortex undergo decreased neurogenesis and eventual senescence following expansion in vitro. *Experimental Cell Research*, 312(11), 2107 - 2120. DOI: 10.1016/j.yexcr.2006.03.012

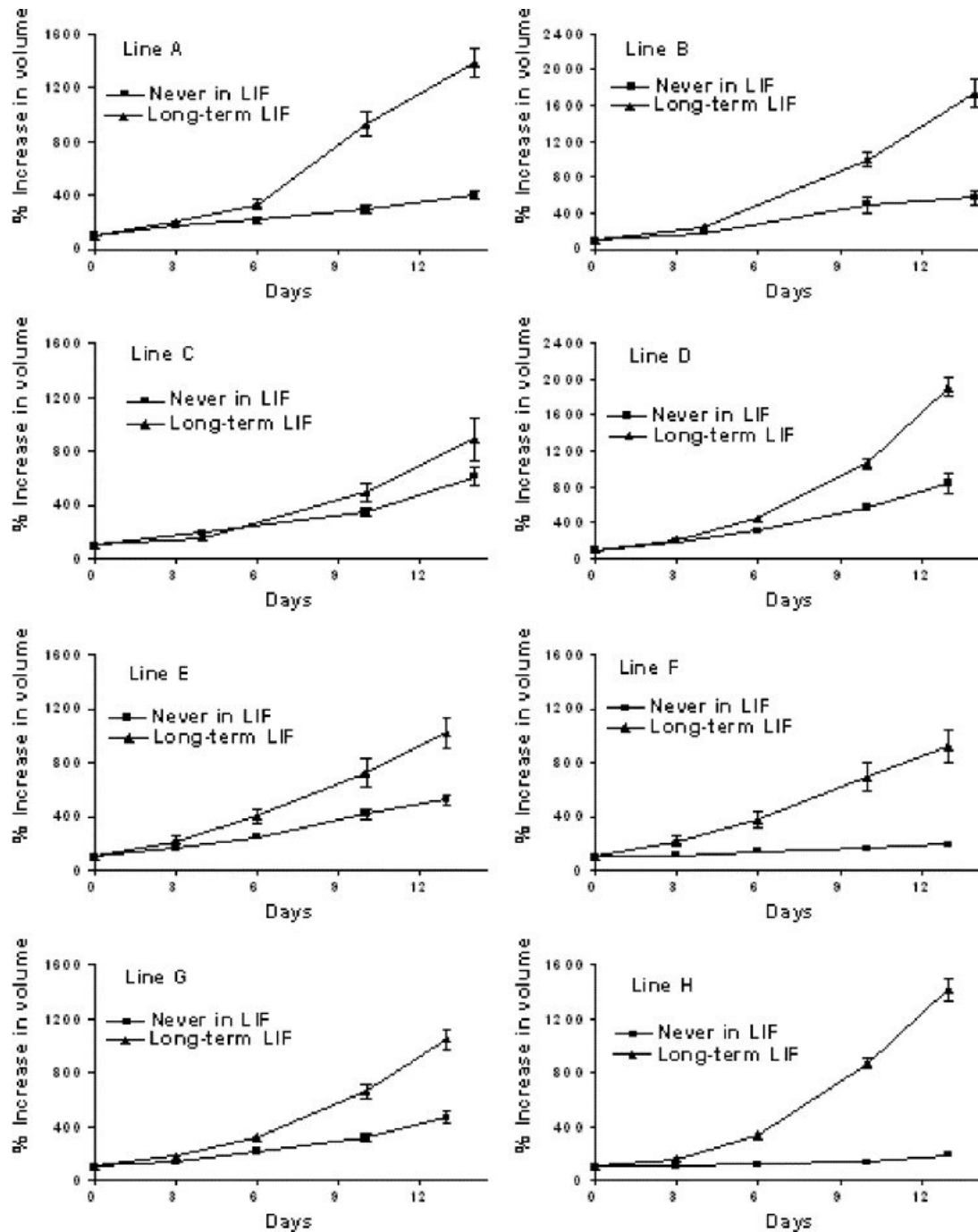
**Copyright**

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

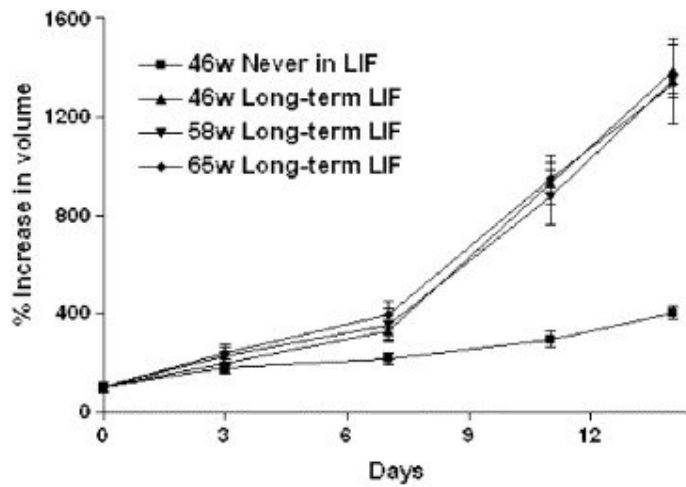
**Take-down policy**

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

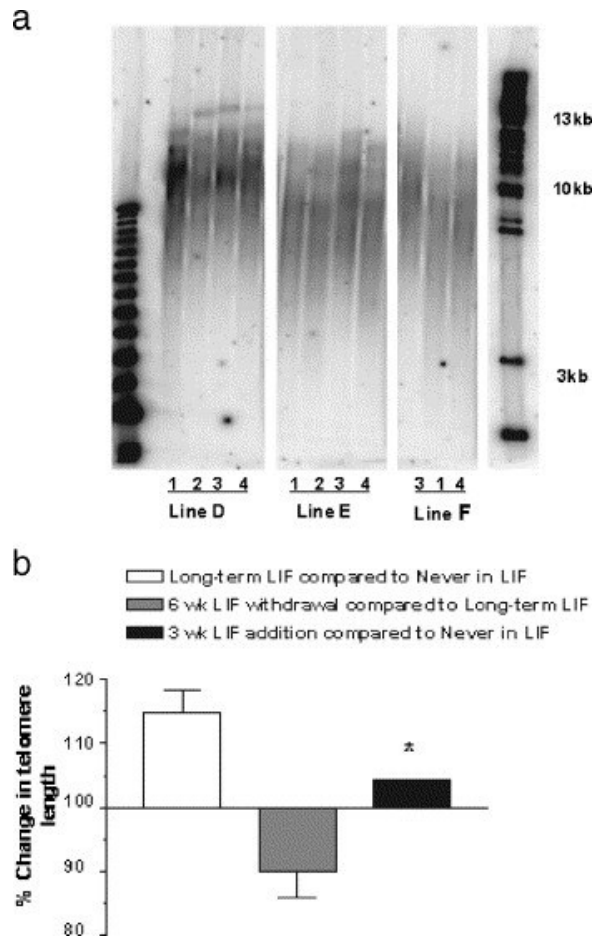
*Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.*



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  $\pm$  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  $\pm$  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  $\pm$  SEM. \*Indicates because there was not enough sample remaining for line F, only two lines (D and E) were averaged for this data point.