How now, young cow

ArticleInfo		
ArticleID	:	3672
ArticleDOI	:	10.1186/gb-spotlight-20000428-01
ArticleCitationID	:	spotlight-20000428-01
ArticleSequenceNumber	:	109
ArticleCategory	:	Research news
ArticleFirstPage	:	1
ArticleLastPage	:	2
ArticleHistory	:	RegistrationDate : 2000–04–28 OnlineDate : 2000–04–28
ArticleCopyright	:	BioMed Central Ltd2000
ArticleGrants	:	
ArticleContext	:	130591111

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Dolly the cloned sheep had one big problem: her telomeres were too short. This sign of aging suggested that Dolly may already have been old at birth. But now a paper in the 28 April Science reports that calves cloned by nuclear transfer from senescent cells have cells that look younger than normal (Lanza et al. Science 2000, 288:665-669). The cloned cells have long telomeres and can divide more times in culture than their counterparts from normal calves. Somehow the egg cell is bestowing this youthfulness on the old donor nucleus. This ability may be species-specific, or dependent on the cell type or nuclear-transfer method. But if the resetting mechanism can be reproduced *in vitro*, outside of the egg cell, it would allow replacement tissues to be produced for patients without the need for ethically qestionable cloning experiments.

References

1. Initial report on cloning Dolly

2. Report that Dolly's telomere's are too short

3. Science Magazine, [http://www.sciencemag.org/]

4. Report on calf cloning, [http://www.sciencemag.org/cgi/content/abstract/288/5466/665]

5. This has URL and Pubmed ID, [http://www.genomebiology.com/]

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