

PublisherInfo		
PublisherName	:	BioMed Central
PublisherLocation	:	London
PublisherImprintName	:	BioMed Central

Of cloned pigs and PERV

ArticleInfo		
ArticleID	:	3746
ArticleDOI	:	10.1186/gb-spotlight-20000818-01
ArticleCitationID	:	spotlight-20000818-01
ArticleSequenceNumber	:	183
ArticleCategory	:	Research news
ArticleFirstPage	:	1
ArticleLastPage	:	2
ArticleHistory	:	RegistrationDate : 2000-08-18 OnlineDate : 2000-08-18
ArticleCopyright	:	BioMed Central Ltd2000
ArticleGrants	:	
ArticleContext	:	130591111

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Nuclear microinjection has yielded the first pig clones, but the wisdom of using the clones as xenotransplant donors is in doubt based on transmission of a pig retrovirus to immunocompromised mice. Onishi *et al.* report in the 18 August *Science* that they have used microinjection of a fetal cell nucleus into an enucleated oocyte to produce a single piglet clone dubbed Xena (*Science* 2000, **289**:1188-1190). In a battle of the press embargoes, this led *Nature*, to reveal that they will soon be publishing a paper from a group at *PPL Therapeutics* that reports use of a double nuclear transfer procedure from cultured cells to produce a litter of five cloned piglets. But in the same issue of *Nature*, Daniel Salomon of the *Scripps Research Institute* and colleagues will report that a porcine endogenous retrovirus (PERV) can infect human cells in co-culture and, after transfer of pig pancreatic islets to immunocompromised mice, mouse cells *in vivo*. Although pig-derived xenotransplants would be less likely to be rejected after modification by gene targeting and cloning, the fear of transferring infectious agents may prompt some researchers to back off from xenotransplantation. Indeed, the upshot of some rather muddled comments from Ian Wilmut and *Geron Bio-Med* of *Dolly* fame appears to be a decision to abandon their pig xenotransplantation program.

References

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5. Biotech firm Geron buys Roslin Bio-Med, the company formed by Scottish researchers who cloned Dolly the sheep. , [<http://abcnews.go.com/sections/business/DailyNews/geron990505.html>]
6. Sheep cloned by nuclear transfer from a cultured cell line.