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

Mother nurture

ArticleInfo		
ArticleID	:	3964
ArticleDOI	:	10.1186/gb-spotlight-20010125-01
ArticleCitationID	:	spotlight-20010125-01
ArticleSequenceNumber	:	35
ArticleCategory	:	Research news
ArticleFirstPage	:	1
ArticleLastPage	:	2
ArticleHistory	:	RegistrationDate : 2001–01–25 OnlineDate : 2001–01–25
ArticleCopyright	:	BioMed Central Ltd2001
ArticleGrants	:	
ArticleContext	:	130592211

Jonathan B Weitzman
Email: jonathanweitzman@hotmail.com

Genomic imprinting is characterized by epigenetic regulation of mRNA expression from a single parental allele. The two parental alleles of imprinted genes are differentially methylated. The mouse gene Peg3 is imprinted and has been shown to control the maternal nurturing of newborn pups in mice. In the January Genomics, Murphy *et al*. show that the human homolog of *Peg3* is also imprinted (*Genomics* 2001, **71:**110-117). They identified a CpG island (CpG islands are much more frequent around imprinted genes than elsewhere in the genome) in the promoter of the human *Peg3* gene that exhibits differential methylation in adult tissues. SNP analysis of fetal tissue samples revealed that the *Peg3* gene is mono-allelically expressed. Paternal allele expression persists post-natally in adult brains and ovaries. This is the first report of imprinted loci on chromosome 19. Perhaps those who feel they were neglected as children should check their mother's *Peg3* status.

References

1. Genomic imprinting in mammalian development: a parental tug-of-war.

2. Peg3 imprinted gene on proximal chromosome 7 encodes for a zinc finger protein.

3. Regulation of maternal behavior and offspring growth by paternally expressed Peg3.

4. *Genomics*, [http://www.geneimprint.com]