

Acknowledgements
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- Surani, M.A.H., Barton, S.C. & Norris, M.L. Development of reconstituted mouse eggs suggests imprinting of the genome during gametogenesis. *Nature* **308**, 548–550 (1984).
- McGrath, J. & Solter, D. Completion of mouse embryogenesis requires both the maternal and paternal genomes. *Cell* **37**, 179–183 (1984).
- Mann, J.R. & Lovell-Badge, R.H. Inviability of parthenogenotes is determined by pronuclei, not egg cytoplasm. *Nature* **310**, 66–67 (1984).
- Cattanach, B.M. & Kirk, M. Differential activity of maternally and paternally derived chromosome regions in mice. *Nature* **315**, 496–498 (1985).
- Reik, W. Genomic imprinting and genetic disorders in man. *Trends Genet.* **5**, 331–336 (1989).
- Hall, J.G. Genomic imprinting: Review and reference to human diseases. *Am. J. hum. Genet.* **46**, 857–873 (1990).
- Henry, I. et al. Uniparental paternal disomy in a genetic cancer-predisposing syndrome. *Nature* **351**, 665–667 (1991).
- Schroeder, W.T. et al. Nonrandom loss of maternal chromosome 11 alleles in Wilms tumors. *Am. J. hum. Genet.* **40**, 413–412 (1987).
- Sapienza, C. Genome imprinting and carcinogenesis. *Biochim. Biophys. Acta* **1072**, 51–61 (1991).
- Sapienza, C., Peterson, A.C., Rossant, J. & Balling, R. Degree of methylation of transgenes is dependent on gamete of origin. *Nature* **328**, 251–254 (1987).
- Swain, J.L., Stewart, T.A. & Leder, P. Parental legacy determines methylation and expression of an autosomal transgene: a molecular mechanism for parental imprinting. *Cell* **50**, 719–727 (1987).
- Pourcel, C. Maternal inhibition of hepatitis B surface antigen gene expression in transgenic mice correlates with de novo methylation. *Nature* **329**, 454–456 (1987).
- Reik, W., Collick, A., Norris, M.L., Barton, S.C. & Surani, M.A.H. Genomic imprinting determines methylation of parental alleles in transgenic mice. *Nature* **328**, 248–251 (1987).
- DeChiara, T.M., Robertson, E.J. & Efstratiadis, A. Parental imprinting of the mouse insulin-like growth factor II gene. *Cell* **64**, 849–859 (1991).
- Barlow, D.P., Stoger, R., Herrmann, B.G., Saito, K. & Schweifer, N. The mouse insulin-like growth factor type-2 receptor is imprinted and closely linked to the Tme locus. *Nature* **349**, 84–87 (1991).
- Bartolomei, M.S., Zemel, S. & Tilghman, S.M. Parental imprinting of the mouse H19 gene. *Nature* **351**, 153–155 (1991).
- Leff, S.E. et al. Maternal imprinting of the mouse Snrpn gene and conserved linkage homology with the human Prader-Willi syndrome region. *Nature Genet.* **2**, 259–263 (1992).
- DeChiara, T.M., Efstratiadis, A. & Robertson, E.J. A growth-deficiency phenotype in heterozygous mice carrying an insulin-like growth factor II gene disrupted by targeting. *Nature* **345**, 78–80 (1990).
- Gray, A. et al. Tissue-specific and developmentally regulated transcription of IGF-II. *DNA* **6**, 283–295 (1987).
- Bell, G.I., Gerhard, D.S., Fong, N.M., Sanchez-Pescador, R. & Rall, L.B. Isolation of the human insulin-like growth factor genes: insulin-like growth factor II and insulin genes are contiguous. *Proc. natn. Acad. Sci. U.S.A.* **82**, 6450–6454 (1985).
- Reeve, A.E. et al. Expression of insulin-like growth factor-II transcripts in Wilms tumour. *Nature* **317**, 258–260 (1985).
- Jullier, C. et al. Insulin-IGF2 region on chromosome 11p encodes a gene implicated in HLA-DR4-dependent diabetes susceptibility. *Nature* **354**, 155–159 (1991).
- Tadokoro, K., Fujii, H., Inoue, T. & Yamada, M. Polymerase chain reaction (PCR) for detection of Apal polymorphism at the insulin-like growth factor II gene (IGF2). *Nucl. Acids Res.* **19**, 6967 (1991).
- Zhang, Y. & Tycko, B. Monoallelic expression of the human H19 gene. *Nature Genet.* **1**, 40–44 (1992).
- Sussenbach, J.S. et al. Structure and post-transcriptional regulation of expression of the human IGF-I and IGF-II genes. In *Modern Concepts of Insulin-like growth factors* (ed. Spencer E.M.) 639–654 (Elsevier New York, 1992).
- Rachmilewitz, J. et al. A. Parental imprinting of the human H19 gene. *FEBS Lett.* **309**, 25–28 (1992).
- Hergersberg, M. Biological aspects of cytosine methylation in eukaryotic cells. *Experientia* **47**, 1171–1185 (1991).
- Haig, D. & Graham, C. Genomic imprinting and the strange case of the insulin-like growth factor II receptor. *Cell* **64**, 1045–1046 (1991).
- Polychronakos, C. The M6P/IGF-II receptor. In *Molecular and cellular biology of the IGFs* (eds Raizada M. & LeRoith D.) 369–379 (Plenum Press, New York, 1989).
- Ozcelik, T. et al. U. Small nuclear ribonucleoprotein polypeptide N (SNRPN), an expressed gene in the Prader-Willi syndrome critical region. *Nature Genet.* **2**, 265–269 (1992).
- Nicholls, R.D., Knoll, J.H.M., Butler, M.G., Karam, S. & Lalonde, M. Genetic imprinting suggested by maternal heterodisomy in non-deletion Prader-Willi syndrome. *Nature* **342**, 281–285 (1989).
- Cattanach, B.M. et al. Candidate mouse model for Prader-Willi syndrome which shows an absence of Snrpn expression. *Nature Genet.* **2**, 270–274 (1992).
- John, S.W.M., Weitzner, G., Rozen, R. & Scriver, C.R. A rapid procedure for extracting DNA from leukocytes. *Nucl. Acids Res.* **19**, 408 (1991).
- Chomczynski, P. & Sacchi, N. Single-step method of RNA isolation by acid guanidinium thiocyanate-phenol-chloroform extraction. *Anal. Biochem.* **162**, 156–159 (1987).

A *de novo* pathological point mutation at the 21-hydroxylase locus: implications for gene conversion in the human genome

Simon Collier, Mayada Tassabehji, Paul Sinnott & Tom Strachan

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The name of Paul Sinnott was omitted from the list of authors.

Figure 3 of this paper was incorrectly captioned, the legend should have been as follows:

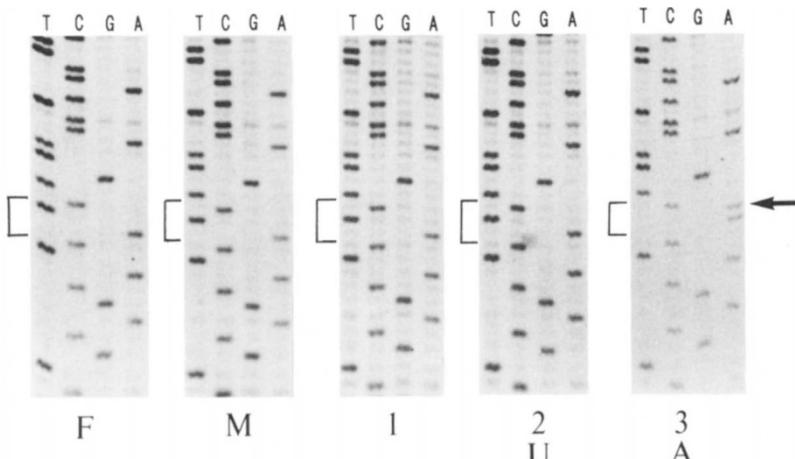


Fig. 3 DNA sequencing autoradiographs of PCR-amplified *CYP21A* genes from family members in the neighbourhood of a pathological *de novo* mutation. Individual panels represent samples from family members using the same symbol representation as in Fig. 2b. The bracketed region to the left of each panel denotes codon 173, the location of the pathological mutation. The arrow denotes the single T to A substitution in this codon in the affected boy.

correction