

- beta-globin locus are independent of the locus control region. *Mol. Cell. Biol.* **20**, 5581–5591 (2000).
18. Donaldson, A. D. *et al.* CLB5-dependent activation of late replication origins in *S. cerevisiae*. *Mol. Cell* **2**, 173–182 (1998).
19. Santocanale, C. & Diffley, J. F. A Mec1- and Rad53-dependent checkpoint controls late-firing origins of DNA replication. *Nature* **395**, 615–618 (1998).
20. Shirahige, K. *et al.* Regulation of DNA-replication origins during cell-cycle progression. *Nature* **395**, 618–621 (1998).
21. Siegfried, Z. *et al.* DNA methylation represses transcription *in vivo*. *Nature Genet.* **22**, 203–206 (1999).
22. Yang, L., Li, R., Mohr, I. J., Clark, R. & Botchan, M. R. Activation of BPV-1 replication *in vitro* by the transcription factor E2. *Nature* **353**, 628–632 (1991).
23. Graessmann, M. & Graessmann, A. Microinjection of tissue culture cells. *Methods Enzymol.* **101**, 482–492 (1983).
24. Kutsukake, M., Komatsu, A., Yamamoto, D. & Ishiwa-Chigusa, S. A tyramine receptor gene mutation causes a defective olfactory behavior in *Drosophila melanogaster*. *Gene* **245**, 31–42 (2000).
25. Simon, I. *et al.* Asynchronous replication of imprinted genes is established in the gametes and maintained during development. *Nature* **401**, 929–932 (1999).
26. Brandeis, M. & Hunt, T. The proteolysis of mitotic cyclins in mammalian cells persists from the end of mitosis until the onset of S phase. *EMBO J.* **15**, 5280–5289 (1996).
27. Hebbes, T. R., Clayton, A. L., Thorne, A. W. & Crane-Robinson, C. Core histone hyperacetylation co-maps with generalized DNase I sensitivity in the chicken beta-globin chromosomal domain. *EMBO J.* **13**, 1823–1830 (1994).
28. Eden, S., Hashimshony, T., Keshet, I., Cedar, H. & Thorne, A. W. DNA methylation models histone acetylation. *Nature* **394**, 842–843 (1998).

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**Competing interests statement** The authors declare that they have no competing financial interests.

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## erratum

### Reassessing the evidence for the earliest traces of life

Mark A. van Zuilen, Aivo Lepland & Gustaf Arrhenius

*Nature* **418**, 627–630 (2002).

On page 628, line 23, of this Letter, the isotope equilibrium fractionation temperature of 500 °C was incorrectly stated as 1,500 °C. □

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## corrigenda

### Recovery of 16S ribosomal RNA gene fragments from ancient halite

Steven A. Fish, Thomas J. Shepherd, Terry J. McGenity & William D. Grant

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Figure 4b of this Letter included a sequence (Thailand-2 AJ319571), which we now realise is highly likely to be a chimera between sequences Thailand-6 (AJ319575) and Thailand-7 (AJ319576), also shown in the phylogenetic tree. The chimaeric sequence is one out of twenty-three halite sequences shown in Fig. 4b, and did not occupy a pivotal position in the discussion; its inclusion in the phylogenetic tree therefore does not affect our general conclusions. The chimaeric sequence has now been removed from the databases. We are grateful to E. Willerslev and A. Cooper for bringing this to our attention. □

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### IRE1 couples endoplasmic reticulum load to secretory capacity by processing the XBP-1 mRNA

Marcella Calfon, Huiqing Zeng, Fumihiko Urano, Jeffery H. Till, Stevan R. Hubbard, Heather P. Harding, Scott G. Clark & David Ron

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In this Letter, the commercial polyclonal antiserum used to detect endogenous XBP-1 was sc-7160 (Santa Cruz Biotechnology) and not sc-8015, as erroneously stated. The antibody sc-8015 is a mouse monoclonal and, in our hands, is not useful in detecting the endogenous protein by immunoblotting. □