

the Human Frontiers Science Program at Harvard University. C.B. acknowledges support from Jean-Luc Popot and the CNRS-UMR7099, where she carried out the final part of the analysis.

**Competing interests statement**

The authors declare that they have no competing financial interests.

Correspondence and requests for materials should be addressed to C.B. (e-mail: Cecile.Breyton@ibpc.fr) or I.C. (e-mail: Ian.Collinson@mpibp-frankfurt.mpg.de).

**corrigendum**

**Extensive and divergent circadian gene expression in liver and heart**

**Kai-Florian Storch, Ovidiu Lipan, Igor Leykin, N. Viswanathan, Fred C. Davis, Wing H. Wong & Charles J. Weitz**

*Nature* **417**, 78–83 (2002).

Two errors of gene annotation have come to our attention. Although we refer to *Zfp36* in the text, the gene identified in our data sets was *Zfp36l-1* (*Zfp36-like 1*; NCBI RefSeq accession number NM\_007564). Current evidence suggests that *Zfp36l-1* protein and its close relatives are RNA-binding factors rather than transcription factors<sup>1–3</sup>. Rather than *Thra* (thyroid hormone receptor- $\alpha$ ), which we identified on the basis of an incorrect Unigene cluster assignment in NCBI, the correct assignment is the nuclear orphan receptor *Rev-erb- $\beta$*  (GenBank accession number U09504). These corrections do not affect our conclusions in any significant way.

1. Carballo, E., Lai, W. S. & Blackshear, P. J. Feedback inhibition of macrophage tumor necrosis factor- $\alpha$  production by tristetraprolin. *Science* **281**, 1001–1005 (1998).
2. Lai, W. S. *et al.* Evidence that tristetraprolin binds to AU-rich elements and promotes the deadenylation and destabilization of tumor necrosis factor  $\alpha$  mRNA. *Mol. Cell Biol.* **19**, 4311–4323 (1999).
3. Lai, W. S., Carballo, E., Thorn, J. M., Kennington, E. A. & Blackshear, P. J. Interactions of CCCH zinc finger proteins with mRNA. Binding of tristetraprolin-related zinc finger proteins to Au-rich elements and destabilization of mRNA. *J. Biol. Chem.* **275**, 17827–17837 (2000).

**addendum**

**Nitrogen loss from unpolluted South American forests mainly via dissolved organic compounds**

**Steven S. Perakis & Lars O. Hedin**

*Nature* **415**, 416–419 (2002).

In this Letter we reported that hydrologic export of dissolved organic nitrogen (DON) dominates over nitrate in unpolluted old-growth forests across southern Chile and Argentina, but that the reverse pattern occurs in old-growth forests exposed to chronically high rates of nitrogen deposition in eastern North America. As a note of clarification, however, we feel it is useful to point out that, depending on conditions, second-growth forests (that is, those that have been previously logged) can display various patterns of nitrogen loss, including dominance of DON over nitrate<sup>1,2</sup> in cases where forest regrowth and detritus accumulation exert strong and well-known demands on internal nitrate supply<sup>3–6</sup>. But these forests were not included in our analysis, given that their nitrogen cycles are influenced by historically complex interactions between nitrogen deposition and land use and so do not represent an appropriate comparison to the old-growth forests investigated in South America.

1. Goodale, C. L., Aber, J. D. & McDowell, W. H. The long-term effects of disturbance on organic and inorganic nitrogen export in the White Mountains, New Hampshire. *Ecosystems* **3**, 433–450 (2000).
2. Campbell, J. L. *et al.* Dissolved organic nitrogen budgets for upland, forested ecosystems in New England. *Biogeochemistry* **49**, 123–142 (2000).
3. Vitousek, P. M. & Reiners, W. A. Ecosystem succession and nutrient retention: a hypothesis. *BioScience* **25**, 376–381 (1975).
4. Hedin, L. O., Armesto, J. J. & Johnson, A. H. Patterns of nutrient loss from unpolluted, old-growth temperate forests: evaluation of biogeochemical theory. *Ecology* **76**, 493–509 (1995).
5. Likens, G. E. & Bormann, F. H. *Biogeochemistry of a Forested Ecosystem* 2nd edn (Springer, New York, 1995).
6. Aber, J. D. *et al.* Nitrogen saturation in temperate forest ecosystems: Hypotheses revisited. *BioScience* **48**, 921–934 (1998).