## letters to nature

- Holstein, S. E., Ungewickell, H. & Ungewickell, E. Mechanism of clathrin basket dissociation: separate functions of protein domains of the DnaJ homologue auxilin. J. Cell Biol. 135, 925–937 (1996).
- Barouch, W., Prasad, K., Greene, L. & Eisenberg, E. Auxilin-induced interaction of the molecular chaperone Hsc70 with clathrin baskets. *Biochemistry* 36, 4303–4308 (1997).
- Takenaka, I. M., Leung, S. M., McAndrew, S. J., Brown, J. P. & Hightower, L. E. Hsc70-binding peptides selected from a phage display peptide library that resemble organellar targeting sequences. *J. Biol. Chem.* 270, 19839–19844 (1995).
- Schroder, S. et al. Primary structure of the neuronal clathrin-associated protein auxilin and its expression in bacteria. Eur. J. Biochem. 228, 297–304 (1995).
- Grigorieff, N. Three-dimensional structure of bovine NADH:ubiquinone oxidoreductase (complex I) at 22 Å in ice. J. Mol. Biol. 277, 1033–1046 (1998).

**Acknowledgements** We are grateful to W. Boll and I. Rapoport for help in the purification of clathrin and adaptors, and to P. Sliz for advice on computational methods. This work was supported by grants from the NIH to T.K. and to D. De Rosier. N.G. and S.C.H. are investigators in the Howard Hughes Medical Institute.

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

**Correspondence** and requests for materials should be addressed to T.K. (Kirchhausen@crystal.harvard.edu). Coordinates have been deposited in the Protein Data Bank under accession number 1XI5.

carries a side mutation(s) that profoundly impairs chemotaxis to the odorant isoamyl alcohol, indicating that we need to re-evaluate our conclusion from the results shown in Fig. 1 that the let-60(n1046gf) mutant has a reduced efficiency of odorant chemotaxis. We outcrossed MT2124 to the wild-type N2 and obtained two let-60(n1046gf) strains, JN130 and JN131. We also outcrossed the MT4866 strain, the let-60(n2021lf) strain used in the study, and obtained the JN148 strain. All the outcrossed strains show reduced chemotaxis to the two odorants tested, isoamyl alcohol and diacetyl, at low odorant concentrations (T.H. and Y.I., unpublished results). The chemotaxis defects are comparable in extent to, or slightly weaker than, the original MT4866 let-60(n2021lf) strain. Our conclusion that both inactivation and hyperactivation of LET-60 Ras cause reduced chemotaxis therefore remains unchanged. However, the result shown in Fig. 1d, which suggested that ksr-1(lf), mek-2(lf) and mpk-1(lf) suppress let-60(n1046gf), is no longer valid because outcrossed *let-60(n1046gf)* strains do not show chemotaxis defects at the odorant concentration used in Fig. 1d  $(1 \times 10^{-3})$ dilution of isoamyl alcohol).

## corrigenda

## The Ras-MAPK pathway is important for olfaction in *Caenorhabditis elegans*

Takaaki Hirotsu, Satoshi Saeki, Masayuki Yamamoto & Yuichi lino

Nature 404, 289-293 (2000).

In this Letter, we used strain MT2124, the standard *let-60(n1046gf)* strain maintained in the *Caenorhabditis* Genetics Center, for odour-chemotaxis assays. However, we have found that this strain

## Contrasting origins of the upper mantle revealed by hafnium and lead isotopes from the Southeast Indian Ridge

Barry B. Hanan, Janne Blichert-Toft, Douglas G. Pyle & David M. Christie

Nature 432, 91-94 (2004).

In this Letter, the quantity  $\varepsilon_{\rm Hf}$  in Fig. 3 and its legend should read  $\Delta\varepsilon_{\rm Hf}$ , which is the change in hafnium isotopic composition relative to the  $\varepsilon_{\rm Nd}$ – $\varepsilon_{\rm Hf}$  mantle array.