6. Wang, Y. & Patel, D. J. Solution structure of the human telomeric repeat $d[AG_3(T_2AG_3)_3]$ G-tetraplex. *Structure* **1**, 263–282 (1993).
7. Wright, W. E. *et al.* Normal human chromosomes have long G-rich telomeric overhangs at one end. *Genes Dev.* **11**, 2801–2809 (1997).
8. Simonsson, T. G-quadruplex DNA structures—variations on a theme. *Biol. Chem.* **382**, 621–628 (2001).
9. Phillips, K., Dauter, Z., Murchie, A. I., Lilley, D. M. & Luisi, B. The crystal structure of a parallel-stranded guanine tetraplex at 0.95 Å resolution. *J. Mol. Biol.* **273**, 171–182 (1997).
10. Mergny, J.-L. & Hélène, C. G-quadruplex DNA: a target for drug design. *Nature Genet.* **4**, 1366–1367 (1998).
11. Bearss, D. J., Hurley, L. H. & Von Hoff, D. D. Telomere maintenance mechanisms as a target for drug development. *Oncogene* **19**, 6632–6641 (2000).
12. Gowan, S. M. *et al.* A G-Quadruplex-interactive potent small-molecule inhibitor of telomerase exhibiting in vitro and in vivo antitumor activity. *Mol. Pharmacol.* **61**, 1154–1162 (2002).
13. Read, M. A. *et al.* Structure-based design of selective and potent G quadruplex-mediated telomerase inhibitors. *Proc. Natl Acad. Sci. USA* **98**, 4844–4849 (2001).
14. Sun, H., Yabuki, A. & Maizels, N. A human nuclease specific for G4 DNA. *Proc. Natl Acad. Sci. USA* **98**, 12444–12449 (2001).
15. Li, J.-L. *et al.* Inhibition of the Bloom's and Werner's syndrome helicases by G-quadruplex interacting ligands. *Biochemistry* **40**, 15194–15202 (2001).
16. Smith, F. W., Schultze, P. & Feigon, J. Solution structures of unimolecular quadruplexes formed by oligonucleotides containing *Oxytricha* telomere repeats. *Structure* **3**, 997–1008 (1995).
17. Balagurumoorthy, P. B. & Brahmachari, S. K. Structure and stability of human telomeric sequence. *J. Biol. Chem.* **269**, 21858–21869 (1994).
18. Read, M. A. *et al.* Molecular modeling studies on G-quadruplex complexes of telomerase inhibitors: Structure-activity relationships. *J. Med. Chem.* **42**, 4538–4546 (1999).
19. Harrison, R. J., Gowan, S. M., Kelland, L. R. & Neidle, S. Human telomerase inhibition by substituted acridine derivatives. *Bioorg. Med. Chem. Lett.* **9**, 2463–2468 (1999).
20. Han, H., Langley, D. R., Rangan, A. & Hurley, L. H. Selective interactions of cationic porphyrins with G-quadruplex structures. *J. Am. Chem. Soc.* **123**, 8902–8913 (2001).
21. Riou, J. F. *et al.* Cell senescence and telomere shortening induced by a new series of specific G-quadruplex DNA ligands. *Proc. Natl Acad. Sci. USA* **99**, 2672–2677 (2002).
22. Koeppl, F. *et al.* Ethidium derivatives bind to G-quartets, inhibit telomerase and act as fluorescent probes for quadruplexes. *Nucleic Acids Res.* **29**, 1087–1096 (2001).
23. Fedoroff, O. Y. *et al.* NMR-based model of a telomerase-inhibiting compound bound to G-quadruplex DNA. *Biochemistry* **37**, 12367–12374 (1998).
24. Read, M. A. & Neidle, S. Structural characterization of a guanine-quadruplex ligand complex. *Biochemistry* **39**, 13422–13432 (2000).
25. Han, H., Cliff, C. L. & Hurley, L. H. Accelerated assembly of G-quadruplex structures by a small molecule. *Biochemistry* **38**, 6981–6986 (1999).
26. Otwinowski, Z. M. & Minor, W. Processing of X-ray diffraction data collected in oscillation mode. *Methods Enzymol.* **276**, 307–326 (1997).
27. Brünger, A. T. *et al.* Crystallography & NMR system: A new software suite for macromolecular structure determination. *Acta Crystallogr. D* **54**, 905–921 (1998).
28. Sheldrick, G. M. & Schneider, T. R. SHELX-97: high-resolution refinement. *Methods Enzymol.* **276**, 319–343 (1997).
29. Cambilleau, C. & Horjales, E. TOM: A FRODO subpackage for protein-ligand fitting with interactive energy minimisation. *J. Mol. Graphics* **5**, 175–177 (1987).

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Competing interests statement

The authors declare that they have no competing financial interests.

Correspondence and requests for materials should be addressed to S.N. (e-mail: s.neidle@icr.ac.uk). Atomic coordinates for the 12-mer strand and the 22-mer quadruplex have been deposited in the Protein and Nucleic Acid Data Banks (accession codes: 12 mer, 1K8P and UD0016 respectively; 22-mer, 1KF1 and UD0017 respectively).

corrigendum

MEC-2 regulates *C. elegans* DEG/ENaC channels needed for mechanosensation

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In this Letter, we reported that MEC-4d capped RNA produced currents statistically indistinguishable from those in water-injected oocytes. Those experiments included oocytes cultured in the presence and absence of 300 μ M amiloride. On examining additional amiloride-treated oocytes, we find that injecting MEC-4d capped RNA alone can result in a statistically significant amiloride-sensitive current at -85 mV ($P < 0.0001$). Cells expressing MEC-4d produced amiloride-sensitive currents of -0.22 ± 0.03 μ A ($n = 53$, range: -0.007 to -1.15 μ A), compared to -0.005 ± 0.006 μ A ($n = 19$, range: -0.06 to $+0.06$ μ A) for water-injected controls. Although these currents are similar in average size, voltage-dependence and time-dependence to those measured in cells co-expressing MEC-4d and MEC-10d, these results do not alter our conclusion that MEC-4 and MEC-10 form heteromeric channels, because MEC-10d increases the apparent affinity for amiloride of the MEC-4d/MEC-2 channel. Our new finding, however, suggests that MEC-4 forms homomeric channels when expressed alone. We also continue to find that co-expression of human stomatin or MEC-2(114–363) produces a small increase in MEC-4d current ($P < 0.05$). □