CORRIGENDUM

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Neurophysiology: Sensing temperature without ion channels

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My Brief Communication about thermoelectricity in shark gels neglected a systematic effect of surface electrochemistry: electrode potentials vary with temperature in electrolyte solutions. However, silver leads in sea water¹ and accepted values for likely electrode reactions² show a sign opposing the gel signals, making it unlikely that an artefactual signal is the origin. Our subsequent work³ discussed artefacts and repeated the signal with platinum electrodes. Although another report⁴ finds a zero signal using salt bridges, it ignores thermopower in gel-filled leads, which risks building a 'null thermocouple' from two similar materials (see ref. 5, for example). A temperature function of the electrosensors is not known, but the thermoelectric transduction hypothesis still stands.

1. Sanford, T. B. *Measurements and Interpretations of Motional Electric Fields in the Sea*. PhD thesis, Massachusetts Institute of Technology (1967).
2. Milazzo, G. & Caroli, S. *Tables of Standard Electrochemical Potentials* (John Wiley and Sons, New York, 1978).
3. Brown, B. R., Hughes, M. E. & Russo, C. Thermoelectricity in natural and synthetic hydrogels. *Phys. Rev. E* 70, 031917 (2004).
4. Fields, R. D., Fields, K. D. & Fields, M. C. Semiconductor gel in shark sense organs? *Neurosci. Lett.* 426, 166–170 (2007).
5. Kasap, S. O. *Principles of Electronic Materials and Devices* 278–284 (McGraw Hill, San Francisco, 2000).

CORRIGENDUM

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An extremely luminous X-ray outburst at the birth of a supernova

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In this Article, the surname of co-author G. Bryngelson was misspelled as G. Byrngelson.