



Cite this: *Chem. Soc. Rev.*, 2019, **48**, 5616

DOI: 10.1039/c9cs90092f

rsc.li/chem-soc-rev

## Correction: Solid-state electrical applications of protein and peptide based nanomaterials

Sayak Subhra Panda,<sup>ab</sup> Howard E. Katz<sup>abc</sup> and John D. Tovar<sup>\*abc</sup>

Correction for 'Solid-state electrical applications of protein and peptide based nanomaterials' by Sayak Subhra Panda *et al.*, *Chem. Soc. Rev.*, 2018, **47**, 3640–3658.

The authors regret that some potentially misleading information was included in their review article. The review included examples of filamentous proteins that play a role in long range bacterial electron transport. Some of these filaments assemble from the pilin protein PilA and mutated variants. Following the publication of the review, two independent groups reported that some of these filaments are actually composed of polymerized chains of the heme-containing protein OmcS that foster extended conduits for heme-mediated electronic delocalization.<sup>1,2</sup> Therefore, to correct the record in the review, the composition of some of the protein filaments described in the review could quite possibly be polymerized heme proteins, not PilA. This is not to say that all related filaments are composed entirely of heme proteins,<sup>3</sup> but additional care should be exercised when correlating filament structure to the associated electrical properties in these types of nanomaterials.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

## References

- 1 F. Wang, Y. Gu, J. P. O'Brien, S. M. Yi, S. E. Yalcin, V. Srikanth, C. Shen, D. Vu, N. L. Ing, A. I. Hochbaum, E. H. Egelman and N. S. Malvankar, Structure of microbial nanowires reveals stacked hemes that transport electrons over micrometers, *Cell*, 2019, **177**, 361–369.
- 2 D. J. Filman, S. F. Marino, J. E. Ward, L. Yang, Z. Mester, E. Bullitt, D. R. Lovley and M. Strauss, Cryo-EM reveals the structural basis of long-range electron transport in a cytochrome-based bacterial nanowire, *Commun. Biol.*, 2019, **2**, 219.
- 3 D. R. Lovley and D. J. F. Walker, Geobacter Protein Nanowires, *Front. Microbiol.*, 2019, **10**, 2078.

<sup>a</sup> Department of Chemistry, Krieger School of Arts and Sciences, Johns Hopkins University, 3400 N. Charles Street, Baltimore, Maryland, 21218, USA. E-mail: tovar@jhu.edu

<sup>b</sup> Institute of NanoBioTechnology, Johns Hopkins University, 3400 N. Charles Street, Baltimore, Maryland, 21218, USA

<sup>c</sup> Department of Materials Science and Engineering, Whiting School of Engineering, Johns Hopkins University, 3400 N. Charles Street, Baltimore, Maryland, 21218, USA

