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Retraction Note: Empirical Modeling of Physiochemical Immune Response of Multilayer Zinc Oxide Nanomaterials under UV Exposure to Melanoma and Foreskin Fibroblasts

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Retraction of: *Scientific Reports* <https://doi.org/10.1038/srep46603>, published online 24 April 2017

The Editors have retracted this Article.

Figure 1 appears to be in part identical to Figure 1 of another published article¹, despite the materials and methods describing how the nanorods were grown differently. The fluorescent spectrum presented in Figure 6 also appears to be identical to Figure 2B of¹, and Figure 2 of². The image for Figure 2C appears to have been duplicated in Figure 7C. This image also appears to have been published as Figure 3D in², and Figure 12C of³. The images for Figure 7B and 7D appear to have been published, respectively, as Figure 12B and 12D in³. The Editors therefore no longer have confidence in the validity of the data and the conclusions drawn.

M. Waseem Akram and Zhiming M. Wang agree with the retraction and its wording. Muhammad Fakhar-e-Alam, Seemab Iqbal, K. S. Alimgeer, M. Atif, and M. Willander did not respond to the correspondence about retraction. The Editors were not able to establish current contact details for K. Sultana.

References

1. Atif, M., Fakhar-e-Alam, M. & AlSalhi, M. S. Role of sensitivity of zinc oxide nanorods (ZnO-NRs) based photosensitizers in hepatocellular site of biological tissue. *Laser Phys.* **21**, 1950–1961. <https://doi.org/10.1134/S1054660X11190029> (2011).
2. Fakhar-e-Alam, M. *et al.* Phototoxic effects of zinc oxide nanowires (ZnO NWs) complexed with 5-ALA in RD cell line. *Laser Phys.* **21**, 2165–2170. <https://doi.org/10.1134/S1054660X11210079> (2011).
3. Akram, M. W. *et al.* In vitro evaluation of the toxic effects of MgO nanostructure in Hela cell line. *Sci. Rep.* **8**, 4576. <https://doi.org/10.1038/s41598-018-23105-y> (2018).



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