

February 4, 2014

Editor  
Journal name  
Journal Address

**RE: Standardization of ENM characterization for publications**

Dear Editor,

I am writing on behalf of the PETA International Science Consortium, Ltd., which coordinates the scientific expertise of PETA and its international affiliates that represent more than three million members and supporters. Recently, it has been realized by researchers from different areas of nanotechnology that not all nano-related studies include proper characterization techniques as put forward by guidance documents such as OECD guidance [ENV/JM/MONO \(2012\) 40](#). Without proper material characterization, these studies are mostly rendered inconclusive, opening up a need for repeat studies. We are concerned about the use of animals in experiments, especially in cases where studies are repeated due to insufficient information. To help reduce duplicative testing, we suggest that the Journal require a minimum set of characterization parameters be met in order for a paper to be accepted for publication.

This requirement will also feed into the efforts of stakeholders who are filling in the gaps in the field of nanotechnology by drafting guidance documents, building web-based repositories and resources, and increasing the dialogue between researchers. So far, their efforts have culminated in the generation of web-based tools such as [NanoMaterial Registry](#),<sup>1</sup> [NanoHUB](#),<sup>2</sup> and [Nanostandards-Wiki](#).<sup>3</sup> However, the application of these tools requires the organization of scientific data in a specific format with details regarding characterization of the nanomaterial, dosimetry, and study outcome.

Therefore, to reduce duplicative testing and to further contribute to the aforementioned efforts, a standard checklist providing the basic physico-chemical information of the nanomaterial should be an integral part of every nanostudy.<sup>4,5,6</sup> Because your journal provides a platform for researchers to share scientific data with their peers, we recommend obtaining the following information from future authors:

- Material type
- Shape
- Size (dimensions)
- Surface charge
- Surface chemistry
- Aggregation/agglomeration
- Dispersion
- Dissolution
- Dosimetry specifications (if applicable to the study)

Having this basic information on material characteristics will streamline the process of data interpretation, greatly reduce duplication of studies,



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and accelerate data entry into web-based nano repositories. Given the advantages, we recommend these nanomaterial characterization requirements be clearly specified on your website as a prerequisite for publication in your journal.

Sincerely,



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