

LETTERS

Edited by Jennifer Sills

Retraction

OUR REPORT “ULTRAHIGH magnetoresistance at room temperature in molecular wires” (1) presents measurements on one-dimensional molecular chains confined inside the nanochannels of zeolite L crystals. In these measurements, we observed signals that were interpreted as an exceptionally large (~1000%) response of the conductance through the molecular chains to an external magnetic field of a few millitesla. The explanation of the results was based on a room-temperature Pauli spin blockade effect, intrinsic to the hopping transport through the molecules. The observed magnetic field scale of a few millitesla could be explained by the typical magnitude of the random nuclear magnetic field in the molecular environment. The shape of the conductance versus magnetic field dependence was found to be in close agreement with similar curves observed in bulk organic semiconductors, in which the effect is referred to as “organic magnetoresistance” or “OMAR.” The exceptionally large effect in our case was ascribed to the one-dimensional nature of electron transport along the molecular chains.

In follow-up research by some of the co-authors, suspicion arose with regard to data collected by the first author Rabintra N. Mahato, which led to a thorough investigation by the co-authors. This investigation has revealed inappropriate data handling by Dr. Mahato, such that the experimental results are not accurately represented in the paper. This makes it, in our eyes, impossible to solidly underpin the conclusions made in the report. All co-authors have therefore concluded that the paper should be immediately retracted. Dr. Mahato has agreed to this Retraction.

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In February 2015, Sierra Leone saw a resurgence in Ebola cases.

REFERENCE

1. R. N. Mahato *et al.*, *Science* **341**, 257 (2013).

Speeding up epidemic emergency response

IN THEIR PERSPECTIVE “Ebola virus vaccines—preparing for the unexpected” (14 August, p. 693), H.-D. Klenk and S. Becker conclude that “many lives might have been saved if the phase 1 clinical studies in which the safety and immunogenicity of the vaccines against Ebola virus was assessed” had been completed earlier.

As contributors to and co-investigator of the study published in *The Lancet* (1), we have reflected on what additional measures could have been taken that would have facilitated an earlier implementation and conclusion of our trial.

(i) An earlier declaration of a Public Health Emergency of International Concern—June 2014 instead of 8 August—could have reduced the time by two months.

(ii) If all preclinical and clinical phase 1 studies had been concluded before the outbreak and a stockpile of vaccine of sufficient number of doses to carry out the phase 3 efficacy studies had been available before June 2014, this could have contributed another two months.

(iii) If Ebola-specific study protocols had been peer-reviewed and cleared in principle with participating partners, through improved international coordination of regulatory and ethical approval processes, this could potentially have reduced time by another month.

(iv) Because of the much higher case load in September 2014, compared with the case load in April 2015, the tail end of the study could possibly have been reduced by another

month. We do acknowledge, however, there are operational limitations for appropriate inclusion and follow-up of trial participants.

In conclusion, in the case of the West African Ebola outbreak, phase 3 vaccine studies could have been concluded in early 2015. This means that in future, analogous situations, an international blueprint for R&D preparedness and response could reduce the total time of implementing and concluding phase 3 vaccine trials during an outbreak. The World Health Organization and partners are currently in the process of developing such a blueprint. We hope the world will support such a framework for better international coordination of R&D for epidemic emergencies.

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REFERENCE

1. A. M. Henao-Restrepo *et al.*, *Lancet* **9996**, 857 (2015).

Free the tweet at scientific conferences

SOCIAL MEDIA ARE acknowledged more and more as tools to communicate science and influence policies. Meetings now have an active presence in social media, with specific hashtags developed to make each event identifiable and searchable. Twitter, for instance, has proved itself highly effective in disseminating the main ideas and results presented at a conference to both attendees and those who could not attend because of time constraints, economic reasons, or even physical or societal barriers. Such rapid

communication has the potential to make science more inclusive, fostering collaboration and results. However, there is a new and controversial trend to limit the free use of social media in scientific conferences.

At the 100th Anniversary Meeting of the Ecological Society of America celebrated in Baltimore in August (<http://esa.org/baltimore/>), with about 3800 attendees, the open use of Twitter (1) and photography (2) during talks was restricted unless permission from the organization or speakers had been granted for each specific talk. A few speakers during that meeting even used a “free to tweet” icon on their slides. Similar guidelines exist for numerous meetings organized by the Cold Spring Harbor Laboratory (3).

A restrictive policy regarding the use of social media in conferences clearly limits the impact of the communicated science and makes little sense in events with attendees in the thousands. We believe that results communicated in a public event should be viewed as public as if they were published in a journal. This would mean, unfortunately, that authors with confidential results or articles under embargo should keep them provisionally outside public view. With the generalized use of smartphones, tablets, and

other communication devices in everyday life, the scientific community should think strategically and clarify the role that social media should play in our activities.

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2. Ecological Society of America, Code of Conduct (www.esa.org/esa/meetings/esa-meetings-code-of-conduct/).
3. Cold Spring Harbor Laboratory, Confidentiality and Reporting Policy for CSHL Meetings (<https://meetings.cshl.edu/information.aspx?meet=PCD&year=15#media>).

TECHNICAL COMMENT ABSTRACTS

Comment on “Statistical binning enables an accurate coalescent-based estimation of the avian tree”

Liang Liu and Scott V. Edwards
Mirarab *et al.* (Research Article, 12

December 2014, p. 1250463) introduced statistical binning to improve the signal in phylogenetic methods using the multispecies coalescent model. We show that all forms of binning—naïve, statistical, and weighted statistical—display poor performance and are statistically inconsistent in large regions of parameter space, unlike unbinned sequence data used with species tree methods.

Full text at <http://dx.doi.org/10.1126/science.aaa7343>

Response to Comment on “Statistical binning enables an accurate coalescent-based estimation of the avian tree”

Siavash Mirarab, Md. Shamsuzzoha Bayzid, Bastien Boussau, Tandy Warnow

Liu and Edwards argue against the use of weighted statistical binning within a species tree estimation pipeline. However, we show that their mathematical argument does not apply to weighted statistical binning. Furthermore, their simulation study does not follow the recommended statistical binning protocol and has data of unknown origin that bias the results against weighted statistical binning.

Full text at <http://dx.doi.org/10.1126/science.aaa7719>



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