

**Subject:** Analysis: Synopsis for the Biology editors  
**From:** Helene Hill <hzhill@verizon.net>  
**Date:** 7/12/2011 4:47 PM  
**To:** nature@nature.com  
**CC:** Joel Pitt <drjhpitt@yahoo.com>

I would like to submit an analysis of a large volume of data that came into my possession during the course of a *qui tam* law suit, that is, a law suit I initiated against a post-doctoral fellow, his chief and the parent university, under the False Claims Act. My co-author and I analyzed several thousand data sets contained in several hundred experiments. We compared results produced by the post-doctoral fellow to those produced by others using the same instrument and performing the same types of experiments. We used the chi square test for goodness of fit to determine whether the post-doctoral fellow's terminal digits of numbers recorded off of a Coulter particle counter were, as they were expected to be, uniformly distributed (this test is recommended on the ORI website as a forensic tool). This probability was on the order of  $10e-90$ . A similar determination of terminal digits from the same counter recorded by others gave a probability of uniformity on the order of 0.12.

Much of the data recorded in 8 publications, a grant application and its renewal were in the form of survival curves based on colony counts. The terminal digits of the colony counts produced by the post-doctoral fellow were similarly analyzed and the probability of uniformity of the terminal digits was found to be on the order of  $10e-44$  while a similar determination based on colony counts of others was on the order of 0.5.

Most of the data were reported as averages of triplicates of colony counts. We further observed that the rounded average appeared as one of the three triples in the test data of the post-doctoral fellow in 62% of the recorded samples, while the rounded average appeared as one of the three triples only 14% of the time in triple colony counts of others in the laboratory. Furthermore, the kinetics of cell survival in experiments reported in 2 journal articles and the grant application and its renewal were single hit or exponential. When the Principal Investigator and a second post-doctoral fellow attempted 10 times to repeat this experiment, they were unable to do so: their ultimate survivals were nearly 3 orders of magnitude higher than those of the first post-doctoral fellow (half the cells surviving compared to one in a thousand surviving). In a different but related set of 12 experiments, the second post-doctoral fellow and the Principal Investigator again were unable to replicate the reported survival kinetics: their ultimate survivals were approximately 2 orders of magnitude higher than those reported in the 2 papers, the grant application and its renewal (65% of the cells surviving compared to 1 in 100 surviving). There are additional examples taken from the raw data that indicate that the results generated by the post-doctoral fellow are anomalous and unexpected.

The implications of our analyses are enormous. The NIH has expended \$2.5 million on this research. Had it not been for our opportunity to examine the raw data the results of our analyses may never have been known. Over 250 citations of the questioned papers indicate that other scientists have relied on the information therein. Patient protocols that rely on the information in the publications may need to be revised.

My colleague and I have prepared a paper reflecting our observations and analyses that we propose to submit to Nature in the category "Analysis". Such articles are described: "they do not report original data, but are review-based reports including a new analysis of existing data that lead to ...arresting conclusion".

**Subject:** Decision on Nature manuscript 2011-07-08996  
**From:** decisions@nature.com  
**Date:** 7/14/2011 11:38 AM  
**To:** hzhill@verizon.net

14th July 2011

Dear Dr. Hill

Thank you very much for your inquiry regarding the publication of an Analysis in Nature.

While we do not publish manuscripts that re-analyze data with the goal of correcting the publication record as Analyses, if the proposed manuscript concerns data contained in a publication from Nature Publishing Group, we would like to suggest you submit a Brief Communication Arising to us. Brief Communications Arising is a section of the Journal where we publish insightful comments on our published papers. (General information and policy about this section can be found at [www.nature.com/nature/authors/gta/index.html#a8](http://www.nature.com/nature/authors/gta/index.html#a8).)

I am sorry that on this occasion we cannot be more encouraging.

Yours sincerely

Claudia Lupp, PhD  
Senior Editor  
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