Scientific controversies often sort themselves out as new data roll in. But a decade-old dispute in nanoscience shows no sign of letting up. Researchers on both sides are claiming that recently published papers settle the debate in their favor, while one is charging his opponents with resorting to an electronic bullying campaign.

The clash dates back to a 2004 *Nature Materials* paper in which researchers led by Francesco Stellacci, then at the Massachusetts Institute of Technology (MIT) and now at the Swiss Federal Institute of Technology in Lausanne (EPFL), reported that they had created gold nanoparticles with stripes of two different organic compounds, which the team imaged using a scanning tunneling microscope (STM). Stellacci says such stripes could help nanoparticles enter cells and thus might be useful for delivering medicines or imaging agents. But critics took the results to blogs, arguing that the stripes were likely artifacts of Stellacci’s attempt to image the artifacts of Stellacci’s experiment, both anonymous and attributed, have appeared on a blog LÈvy of the University of Liverpool and Philip Moriarty of the University of Nottingham—were quick to respond. All along they have contended that Stellacci and his colleagues made basic mistakes in their imaging studies. For example, they say, the original “stripes” were created by electronic feedback in the STM.

Now, in an article posted on the arXiv online physics preprint server and submitted to *PLOS ONE*, they charge that the new papers are riddled with cherry-picked images, patterns imposed on what is essentially noise, and other mistakes that undermine the authors’ interpretation of the data.

Just as fierce is the metadispute over the way the critics of Stellacci’s experiment have waged their campaign. Stellacci notes that his critics have made four formal misconduct charges against him: two to MIT and one each to EPFL and the journal *ACS Nano*. Investigators cleared him in all four cases. What’s more, apart from a couple of papers in journals, the critics have posted most of their denunciations online in blogs, on Twitter, and in anonymous comments on the postpublication criticism website PubPeer. Numerous harsh critiques of Stellacci’s work, both anonymous and attributed, have appeared on a blog LÈvy runs on his research group’s website.

“I have been subject to chemical cyber-bullying,” Stellacci says. “I understand what kids that commit suicide go through.” Instead of engaging in such “unethical and unprofessional” conduct, he says, the skeptics should go through the normal channels of peer review and publish their data in journals so the scientific process can work through the issues.

But the critics say their adversarial approach is normal science at work and that researchers should not hide behind the cloak of peer review. “I have no time at all for this argument,” Moriarty says. “If you’re publicly funded, tough. Get out there and face your critics.” He and LÈvy say they were forced to go online in this case because the peer-review process was far too slow. LÈvy says he had to wait 3 years to get a manuscript published in response to the original *Nature Materials* paper. “It shows there are serious problems with the way science is evaluated [using peer review],” LÈvy says. He adds that he has “no personal conflict” with Stellacci and would post unedited any rebuttal or commentary Stellacci cared to send. Stellacci, however, says he refuses to be drawn into an unending scuffle with opponents who misrepresent his work.

Kelly agrees with critics that the stripes in the original paper “look like an imaging artifact,” but he and others say the jury is still out on more recent reports. The bottom line, Kelly says, is that trying to take images of stripes just two to three molecules wide on a tiny curved surface pushes the current limits of nanoscience. “They are trying to do a really hard measurement,” he says.

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