Who is qualified to instruct scientific manuscript writing?

While we were pleased to note that Sachi Sri Kantha profited from reading our article on the importance of and need for formal manuscript-writing workshops at institutions of higher learning¹, we were disturbed by his contentions in a recent correspondence to Current Science². In his letter, Kantha does not comment on the mainstay of our article, but cautions the readers of 'phony prophets who pretend to teach scientific writing' in referring to the instructors of writing workshops and courses cited by us as examples in the United States. In addition to pointing out why Kantha's defamatory charge is erroneous even based on his own reasoning, we explain why we disagree with his dubious assertion that individuals who have not published much in peer-reviewed scientific journals cannot teach anything to graduate students aiming to publish original research in scientific journals.

While nine individuals at four different universities were denounced by Kantha, we comment here on the first two writing instructors: Kristin Sainani, Stanford University, USA, and Pamela Derish, University of California, San Francisco (UCSF), USA. Kantha contends that these instructors had seldom or not at all published and that they had no business teaching 'the techniques of manuscript writing'. He writes, '(Sainani) does not have a single paper recorded in the Web of Science (WoS) database'. Kantha has done a grossly inadequate search. In fact, had he searched using either Sainani's married name (Sainani K or Sainani KL) or maiden name (Cobb K or Cobb KL), he would have found 47 and not zero publications. Alternatively, Sainani's publication record is readily and fully accessible on her website (https://med.stanford.edu/ profiles/kristin-sainani). In the case of Pamela Derish, it is true that she has published only 8 papers in the past 10 years. However, the fact that she has been a scientific editor at UCSF, and not a researcher, for the last 20 years nullifies Kantha's fundamental argument that she has not published research papers. Misinformation is bad, but grandstanding on its basis is worse. [Incidentally, Kantha laments how the NIH website cited in our article is no longer accessible, likely a reflection of budgetary cuts - we checked again, as we did before submitting our article, and the website is alive if one types the complete web address (URL) correctly, or looks for the title of the website in any web search engine.]

Kantha uses the analogy of a boxing coach (or Muhammad Ali) teaching ballet to an aspiring ballerina, to show how ludicrous it is for someone who has not published in scientific journals to teach scientific writing. This is a weak argument for various reasons. Foremost, those who do not have long publication lists or mastery of content in a given scientific discipline can still teach general effective writing and precise expression. In fact, we have suggested in our article that two types of training are needed during graduate education: courses that strengthen basic writing skills which are then augmented with disciplinary writing, likely imparted by doctoral supervisors. Second, are the best-published scientists always the most effective teachers of scientific writing? If so, would journal editors be pleading for clarity on a regular basis or directing authors to on-line editing services? (This viewpoint permeates all walks of life for example, do brilliant musicians make great music teachers, or vice versa?) Third, what is the metric by which we should judge the quality of a writing instructor? The evaluation system for teachers and researchers cannot be the same, since their efforts are focused differently. While researchers are judged by impact factors as well as the quality and quantity of publications, teachers are assessed by how much they help students. To be an effective writing teacher, one needs to have extensive experience editing manuscripts, and this will be reflected in how well and how much his/her students have progressed to publish and thrive in their scholarly pursuits. Last, instruction in writing must be inclusive. Sainani is a trained science journalist and has written science articles for general audiences, as Derish has as a science editor. They have unique perspectives from their experiences that allow them to recognize flaws in the way scientists write. Expertise of individuals like Sainani and Derish will be critical to the larger research establishment that is now struggling to meet the challenging goal of communicating science to the general public.

All scientific correspondence, especially those speculating subjectively on important issues, must be thoroughly researched and the findings, regardless of disagreements, expressed with respect for members of the global research and teaching community. Since there is enough ink to poison the entire world, a key element of the writing workshops (derided by Kantha) is an emphasis on how criticism and alternative views should be offered in a sensitive manner. All scientists, particularly those like Kantha who instruct students on writing, have an important obligation to strengthen the fabric of the scientific enterprise by adhering to and promoting unwritten professional codes in scientific writing.

- 1. Glew, R. H., Challa, A. K. and Gopalan, V., *Curr. Sci.*, 2014, **107**, 1386–1392.
- 2. Kantha, S. S., Curr. Sci., 2015, 108, 9.

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Response:

I appreciate the criticism by Glew et al. to my previous correspondence on the need for published scientists to teach scientific writing to the students. Wherever my search strategy has gone astray, once more I tender my apologies to Sainani and to the readers of *Current Science*.

I also stand corrected by the information that contrary to my erroneous assertion, the NIH website cited in their original article is still alive.

The simple reason why I did not comment on the mainstay of the article by Glew et al. was that I do agree with it to a great extent. The fact that they picked up to comment only on two among the nine individuals I had cited suggests that they were unable to challenge my views on the remaining seven. Furthermore, Glew et al. themselves acknowledge that Pamela Derish has published only eight papers; and they have hidden the fact that none of these eight was sole author publications! How can one vouch that her contribution in writing those eight papers was 100%? One of these papers was an opinion piece, entitled, 'How to write a rave review'. In this paper, Derish and her co-author inform that

there are three main types of review articles – traditional narrative 'scholarly' review, systematic review and meta analysis. So far so good. My contention is that, among the eight publications of Derish, how many belong to all these three different review articles. If the instructor—author has not published such review articles in a peer-reviewed journal, how could she offer advise to her students on the subtleties of getting a review paper accepted? And also check that hyperbole adjective 'rave' in the title.

I am reminded of a witty comment by the humorist and a great writer with a remarkable range, Andy Rooney² (1919–2011), 'Don't take a butcher's advice on how to cook meat. If he knew, he'd be a chef!' Despite the criticism offered to my analogy, whether a boxing coach (or the great Muhammad Ali) can teach ballet to an aspiring ballerina, I do stand by it.

Whether it was grandstanding or not, let the readers decide.

Finally, those who are interested in learning my take on scientific writing (both basic writing skills and disciplinary writing) are invited to check an essay I had published previously³.

- 1. Derish, P. A. and Annesley, T. M., *Clin. Chem.*, 2011, **57**, 388–391.
- 2. Rooney, A. A., *And More by Andy Rooney*, Athenum, New York, 1982, p. 181.
- 3. Sri Kantha, S., *Croat. Med. J.*, 2003, **44**, 20–23.

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