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Dr. Anthony J. Campillo  
Chair, OSA Editorial Ethics Review Panel  
OSA, The Optical Society  
2010 Massachusetts Ave., NW  
Washington, DC 20036 USA

RE: Support for Article Retraction

Dear Dr. Campillo,

On August 18, 2016, the University of Florida (UF) conducted a research misconduct investigation into allegations that data in the Optical Society of America article (2014 Sept.; 39 5355-5358.), *Finite-element-based photoacoustic imaging of absolute temperature in tissue* were falsified.

The Investigation Committee found that the raw data were too noisy to support Figure 3 in the paper or the conclusion that the data showed that the finite-element-based algorithm worked given the subjective nature of data rejection based on an a priori assumption that the data should follow the rising temperature trend. This data selection process is not within the norms of research as broadly accepted in the engineering and scientific communities.

The Investigation Committee also found that Dr. Lei Yao's practice of first screening to see if the resulting data produced a monotonic increasing temperature value with time, and if not, then rejecting the data, constitutes falsification. Further, the Investigation Committee found that once this first screening was performed, Dr. Yao then processed the passing data with his algorithm. Dr. Yao stated that he had strong confidence in the algorithm itself, which was his main contribution and that he "expected the experimental results to fit" the thermocouple data, and that the "points should be close". If several data sets passed the first test, Dr. Yao stated that he selected the single data point "closest to the thermocouple (TC) data". The Investigation Committee found that this practice was also falsification.

Thus the allegation met the definition of research misconduct. The Investigation Committee also concluded that Dr. Yao's actions were a significant departure from the accepted scientific practices and that they were committed intentionally. Thus, Dr. Yao committed research misconduct.

Thus, UF supports Dr. Yao's request for retraction of the paper.

Please let me know if you have questions or need additional information.

Sincerely,



Irene Cooke, D.V.M., Ph.D.  
Research Integrity Officer,  
Assistant Vice President for Research,  
and Director of Research Compliance