This flowchart relates only to cases where concerns related to digital photographic images are raised (e.g., duplication of parts within an image, or use of identical images to show different things). For wider concerns about potential data fabrication, please consult the flowchart ‘Suspected fabricated data in a published manuscript’.

**READER EXPRESSES SUSPICION OF IMAGE MANIPULATION**

THANK READER AND STATE YOUR PLAN TO INVESTIGATE

Consider getting a 2nd opinion from another reviewer

Contact author to explain your concerns but do not make direct accusations

**Response**

Satisfactory explanation

Unsatisfactory answer

**APOLLOISE TO AUTHOR. PUBLISH CORRECTION IF NECESSARY (EG, IF AN HONEST ERROR HAS BEEN DETECTED THAT DOES NOT INVALIDATE CONCLUSIONS)**

Consider whether you have sufficient evidence of image manipulation to publish a retraction or a correction (e.g., does zooming in show that parts of images are duplicated). Consider using software to analyse images

Clear admission of image manipulation by author

No response

Contact author’s institution requesting your concern is passed to author’s superior and/or person responsible for research governance, if necessary coordinating with co-authors’ institutions

Authors not guilty of image manipulation

Authors guilty of image manipulation

**APOLLOISE TO AUTHOR. PUBLISH CORRECTION IF NECESSARY**

(eg, if an honest error has been detected that does not invalidate conclusions)

**CONSIDER CONTACTING AUTHORS’ INSTITUTION EVERY 3-6 MONTHS**

If no resolution, consider contacting the authorities, eg, ORI in US, GMC in UK. Consider publishing an Expression of Concern

Inform authors’ superior and/or person responsible for research governance at authors’ institutions, and inform authors

**PUBLISH A RETRACTION (OR CONSIDER A CORRECTION IF THE MANIPULATION IS VERY MINOR AND THE MAJORITY OF THE RESULTS AND CONCLUSIONS OF THE ARTICLE REMAIN VALID), CONTACTING ALL AUTHORS AND TELLING THEM WHAT YOU PLAN TO DO**

Inform Reader of Outcome

**WHAT TO DO IF YOU SUSPECT IMAGE MANIPULATION IN A PUBLISHED ARTICLE**

References


Bioscience-scale Automated Detection of Figure Element Reuse. Daniel E. Acuna et al. https://bit.ly/2COyr8N

Researchers have Finally Created a Tool to Spot Duplicated Images across Thousands of Papers. Declan Butler. https://go.nature.com/2ES7ORI
