OBJECTIVE
See if you can detect the research misconduct in this sample results section.

METHODS
Thoroughly review the images below to determine what was falsified or fabricated.

RESULTS
Check your findings with the explanations in the discussion section.

FIGURE 1. COMET ASSAY
The control image was cropped and relabeled as the image for Protein A. It was also intentionally lightened to make the “tails” appear longer.

FIGURE 2. IMMUNOFLUORESCENCE COLOCALIZATION ASSAY
M1 and M4 are the same image but flipped horizontally.

FIGURE 3. WESTERN BLOT
The top panel and bottom panel of Figure 3 are from the same source image. The Protein A blot image has been flipped horizontally and represented as the control blot image.

FIGURE 4. GEL SHIFT ASSAY
Lanes 1, 4, and 5 are from the same image source and were relabeled and reused to represent different experimental conditions.

DISCUSSION

FIGURE 1. COMET ASSAY
The control image was cropped and relabeled as the image for Protein A. It was also intentionally lightened to make the “tails” appear longer.

FIGURE 2. IMMUNOFLUORESCENCE COLOCALIZATION ASSAY
M1 and M4 are the same image but flipped horizontally.

FIGURE 3. WESTERN BLOT
The top panel and bottom panel of Figure 3 are from the same source image. The Protein A blot image has been flipped horizontally and represented as the control blot image.

FIGURE 4. GEL SHIFT ASSAY
Lanes 1, 4, and 5 are from the same image source and were relabeled and reused to represent different experimental conditions.

CONCLUSION
Readers play an important role in detecting image manipulations. If you think you see research misconduct, make your concerns known to your institutional Research Integrity Officer.

Learn more about image processing at: http://ori.hhs.gov/ImageProcessing