**Quick Reference Table for Common Figure Types**

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<td>Required File Types</td>
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<td>Required Resolution</td>
<td>300 ppi</td>
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<td>Adobe Photoshop; GIMP</td>
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### 10. Image Manipulation

Image files should not be manipulated or adjusted in any way that could lead to misinterpretation of the information present in the original image. Inappropriate manipulation includes but is not limited to:

- The introduction, enhancement, movement, or removal of specific feature(s) within an image;
- Unmarked grouping of images that should otherwise have been presented separately (for example, from different parts of the same gel, or from different gels, fields, or exposures);
- Adjustments of brightness, contrast, or color balance that obscure, eliminate, or misrepresent any information.

Digital images in manuscripts nearing acceptance for publication may be scrutinized for any indication of improper manipulation. If evidence is found of inappropriate manipulation we reserve the right to ask for original data and, if that is not satisfactory, we may decide not to accept the manuscript.

A sample of provisionally accepted papers is randomly selected by *PLOS Biology* for extensive checking of original images for evidence of inappropriate manipulation. *PLOS Medicine* will extensively check original images from all papers accepted for publication for evidence of inappropriate manipulation. When a paper is checked for this purpose, publication staff will request that all original photographic images be provided by asking the author to upload them to our FTP site.

We are grateful to staff at the *Journal of Cell Biology* (Rockefeller University Press) for their help in establishing these guidelines and procedures ([http://www.jcb.org/misc/ifora.shtml#image_aquisition](http://www.jcb.org/misc/ifora.shtml#image_aquisition)).