

Guide to Medical Illustration services

Illustration can be an effective way to communicate your research. The aim of this guide is to help authors working with our Medical Illustration team to create publication-ready figures for journals and textbooks.

It starts with a sketch from you

Figures often depict complex subjects, therefore it's important to identify what needs to be shown. A rough content sketch from you is the best way to begin, and allows us to provide a cost estimate.

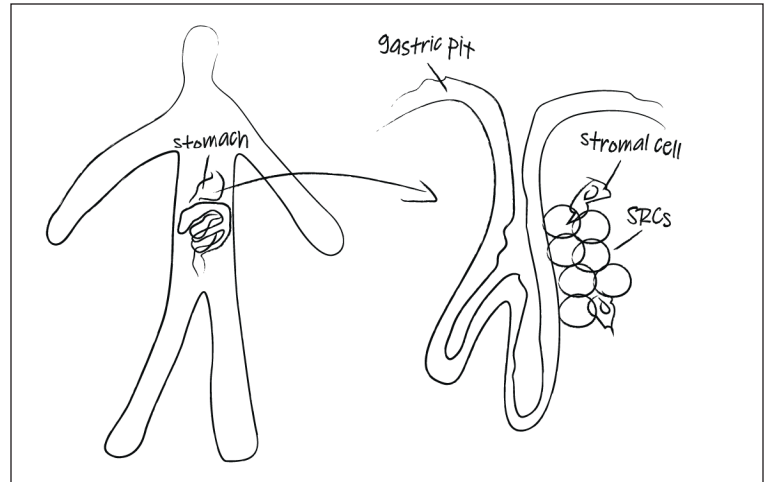
What your sketch should show:

- All essential elements that need illustration
- Labeling
- Use figure parts (a, b, c, etc) and subheadings to indicate figure hierarchy
- Doesn't need to be elaborately drawn, but should at least convey needed content
- This is your publication, and should not require extensive additional research by the illustrator

Tips:

- Avoid using redundant or ambiguous elements
- Merge sequential steps where possible
- Avoid non-scientific motifs or elements, such as potentially cryptic symbols or designs

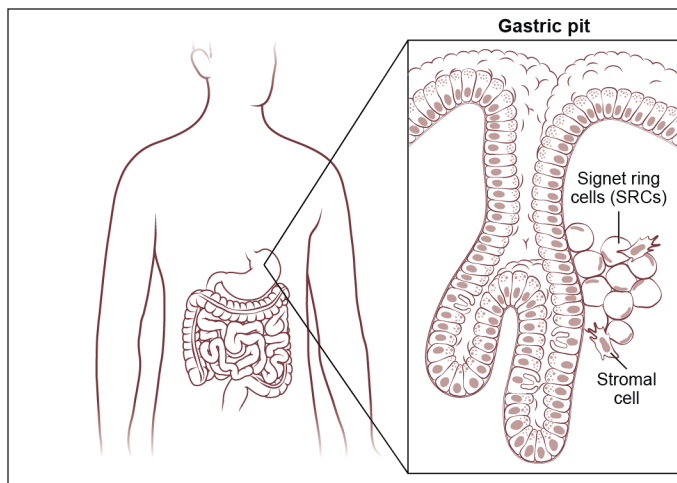
Sample sketch from you



Our process

Typically we don't simply 're-draw' your sketch. We develop figures to clearly communicate content, and to meet publication standards and accessibility requirements. After you've provided a rough sketch and we've reviewed the scope of work, our next step is to develop a draft. The first draft is often line art without color. After we've emailed you the draft, we ask that you mark it with any needed edits and send it back to us for revision. A photo of a marked draft is great, or you could make digital notes in Acrobat or PowerPoint.

Sample first draft from us



Sample of markup for revision from you

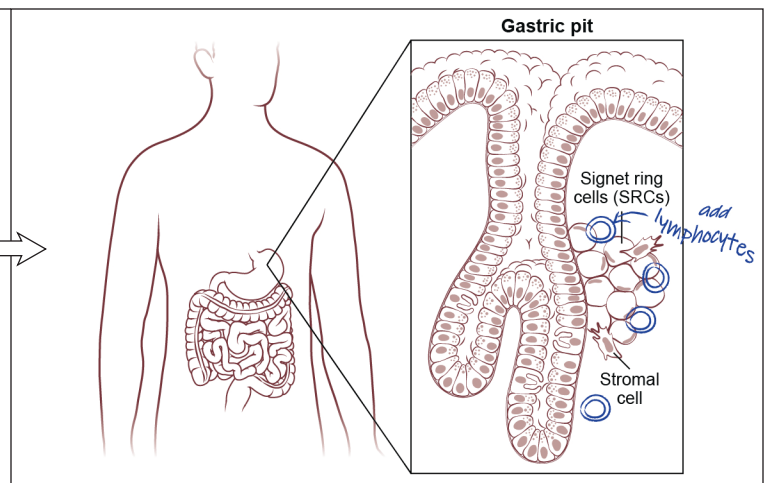
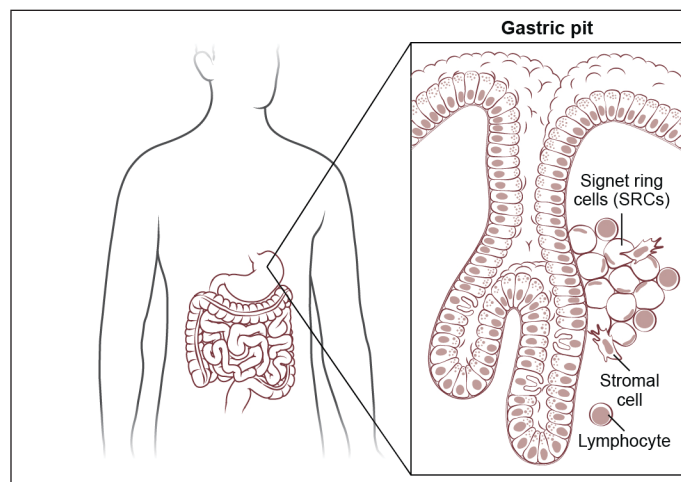


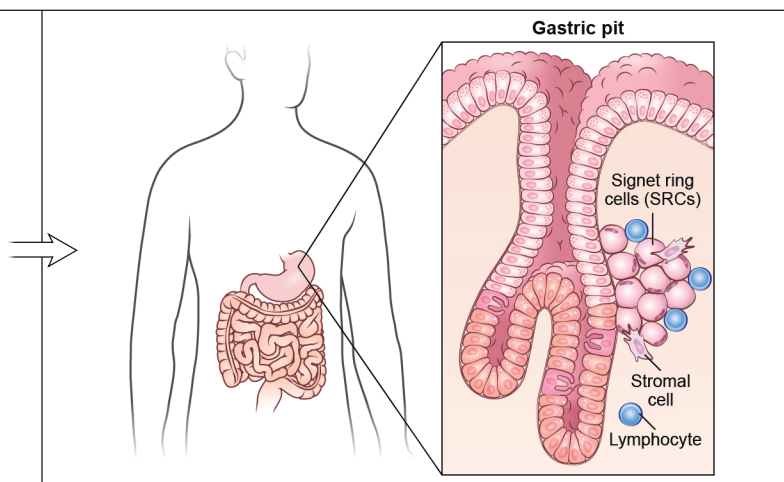
Figure color and final file preparation

After a figure has been reviewed, edited and approved for color, we prepare the final version. Figures are always formatted to the size they are to be printed. Standard figure sizes are 89 mm (single column) and 183 mm (double column). Final files are typically delivered as PDF and layered AI (Adobe Illustrator). Most publications use Arial font and 6-8 point size text at print size.

Sample of edited draft



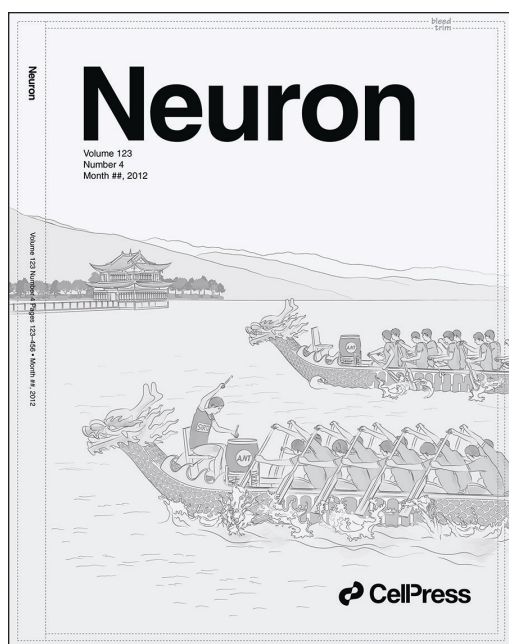
Sample of colored figure



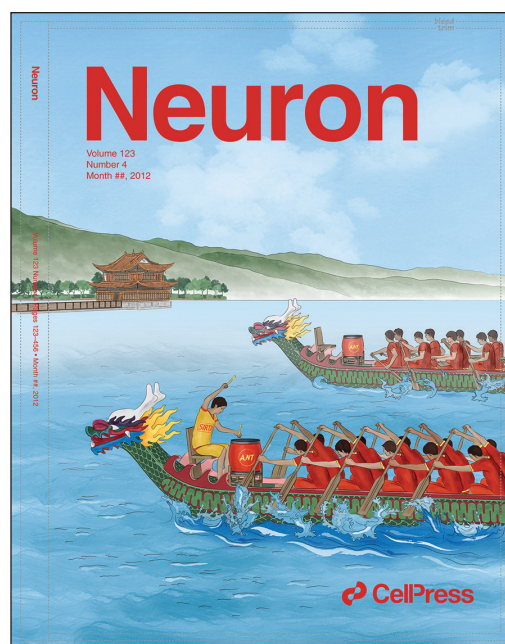
Art for journal cover submissions

Authors are welcome to submit ideas for cover illustrations, or we can develop concepts based on the title and abstract for the publication. A survey of recent cover selections for the respective journal is always recommended in order to help guide the best approach for cover art. It is also critical to know the deadline for art submission prior to beginning work. For illustrated covers, the first draft is often line art without color.

Sample of line art draft



Sample of colored cover



Animations and video abstracts

Animations and video abstracts are a great way to showcase your research. A rough outline of the content from you is the best way to begin, and allows us to provide a cost estimate and create a storyboard. If there is to be narration, you should provide a script before we begin storyboard development.

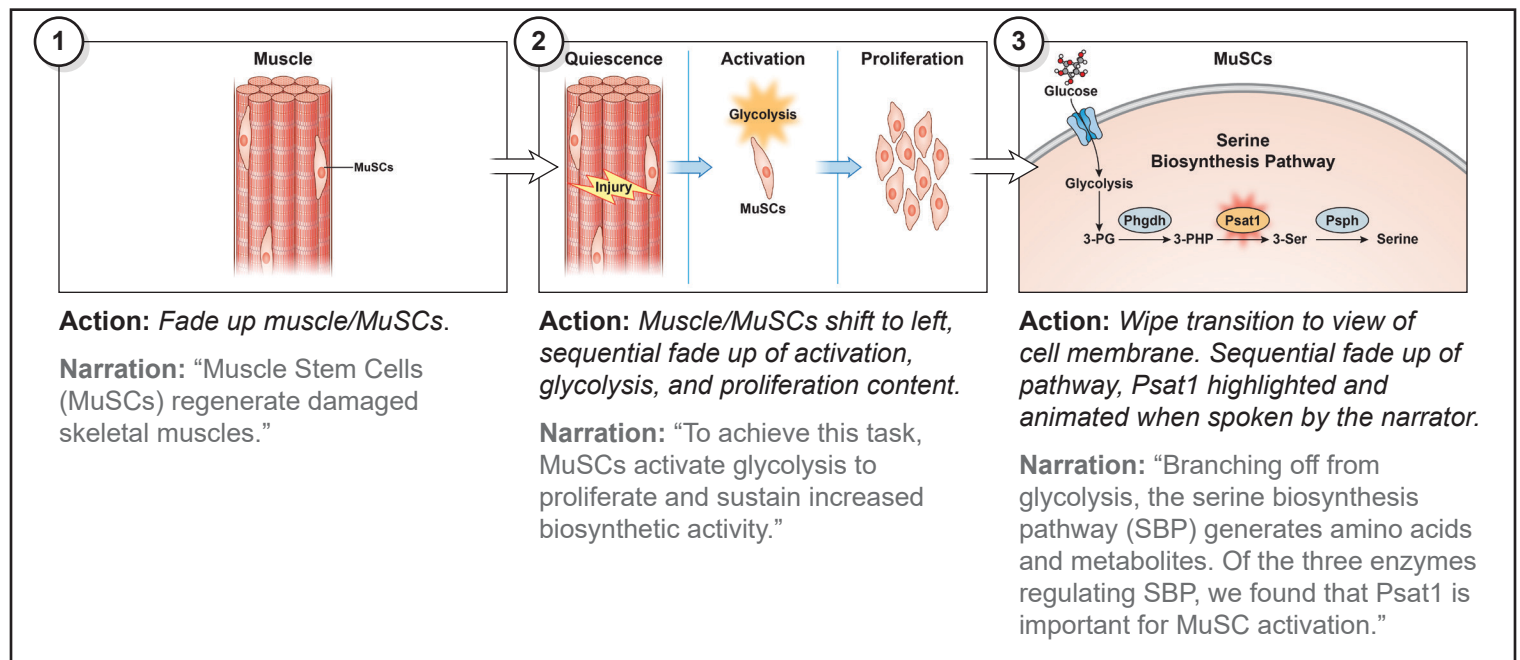
What your sketch should show:

- All essential elements in a logical sequence, and include labeling and what should be highlighted or animated in each step
- Doesn't need to be elaborately drawn, but should at least convey needed content
- If the animation will include voice narration, include the script for each sequential step, and make sure it speaks to action on screen

Tips:

- Avoid long narrative sections that do not have a corresponding animation or action on screen
- Consider how key points will transition into the next part of the sequence
- If narrated, practice reading the script to check timing and runtime
- It is usually best to only have one key action animating on screen at any given point in the film

Sample storyboard sequence from us



A storyboard is a visual representation of a film sequence and breaks down the action into individual panels. The storyboard will include illustrated content drafts, camera notes, dialogue, and other pertinent details such as timing information. This is where all content should be reviewed and edited prior to animation.

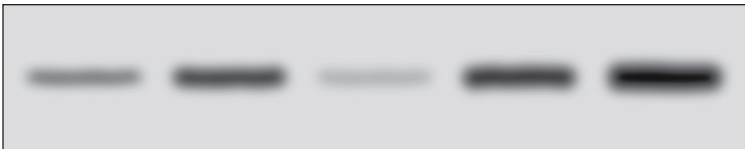
Final video file preparation

After the storyboard has been reviewed, edited and approved, we animate and composite content in Adobe After Effects. We typically record the script prior to film creation, so that the animation is properly timed to the spoken action points. Any content or narration modifications after the animation phase will require significant additional work, therefore it is critical to carefully review storyboards. Animations may be saved for PowerPoint playback, YouTube, laboratory websites, and use by journals.

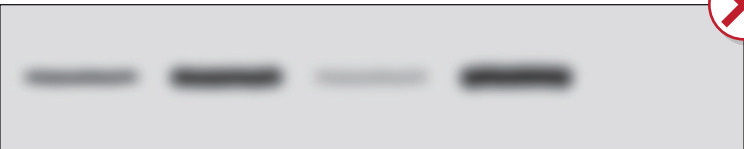
Image and data integrity

Please be aware that journal editors may conduct “forensic” analysis of images and are able to detect manipulations by reviewing both metadata and inconsistencies in pixel information; this extends to image alterations made by artificial intelligence (AI) applications.

Original image

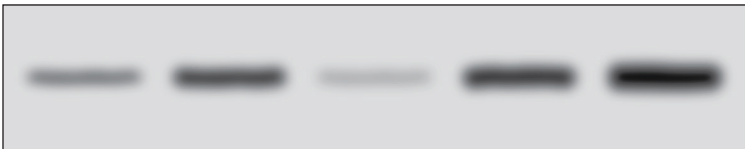


Manipulated image - Features removed



No specific feature within an image may be enhanced, obscured, moved, removed, or introduced.

Original image

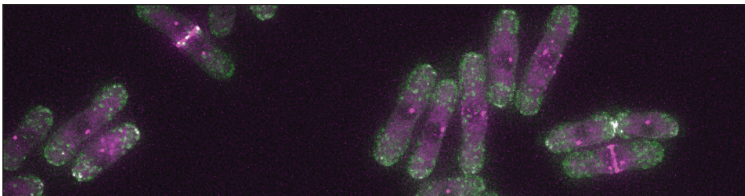


Manipulated image - Excessive adjustment

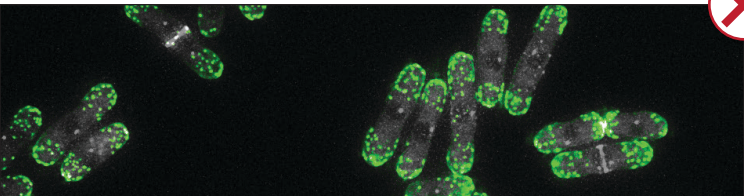


Adjustments to color, brightness, and contrast are acceptable if they are applied to the entire image and if they do not misrepresent any information present in the original image. For example, adjusting the intensity of a single band in a blot constitutes a clear violation. Also, while it is technically within the guidelines to adjust brightness and contrast of a whole image, if you over-adjust the contrast, this could also raise suspicions of excessive image manipulation. For example, contrast should not be adjusted so that elements of the image disappear. Re-arranged lanes that are non-adjacent in the gel must be clearly indicated in a manner that delineates the boundary between the lanes. Re-arrangement of lanes should be stated as such in the figure legend.

Original image



Manipulated image - Misleading adjustment



Similarly, digitally altering brightness or contrast levels may be misleading with fluorescence micrographs and should be avoided. Any adjustments of individual color channels should be noted in the figure legend.

Charts and graphs

If providing materials for charts and graphs in figures, we strongly recommend providing the original vector files. For example, if graphs were made in Prism or similar data visualization software, export materials as PDF or EPS. If providing raster materials (such as JPEG), please make sure that the resolution is high enough to clearly interpret the data.

**Vector format - Editable and crisp
(PDF or EPS)**

This is the best format if available

**Raster format - Uneditable
(JPEG)**

If no vector format is available, please save the images at the highest resolution possible