

## SSBD:database – image data submission guidelines

- SSBD:database aims to share microscopy image data on biological dynamics (i.e. image data that contains spatiotemporal information) that can be reused for further research and analysis.
- Please provide raw images that were taken directly from experiment with as little modification as possible.
- We will share image data without temporal information if they are of high quality or highly reusable, e.g. high-resolution images obtained from cutting edge advanced microscope system.

## Recommended file formats

- We prefer to receive original image file formats directly used by software of microscope companies, such as Olympus: OIB/OIF, Leica: LIF, Zeiss: LSM, Nikon: ND2, etc.
- In the case of commonly used image formats such as TIFF, we prefer to receive image file with lossless quality, i.e. uncompressed.

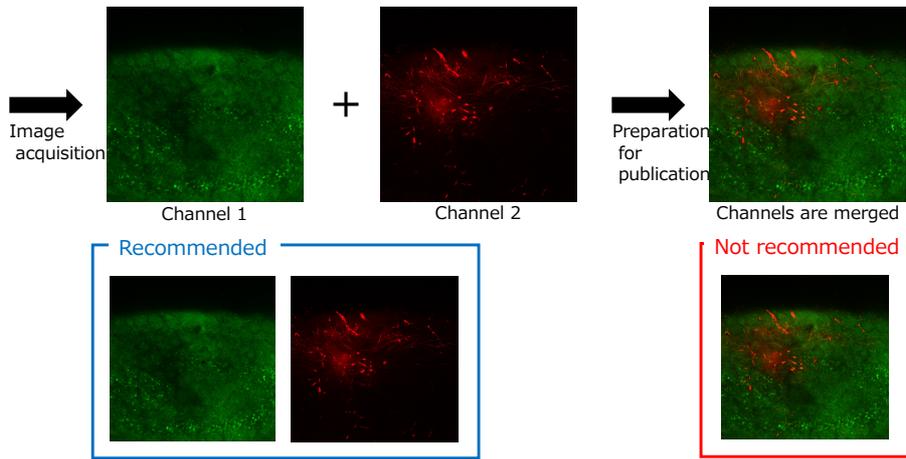
## Recommendation and best practice

1. For those images that have multiple channels, we would prefer a single file that contains separated images for each channel, otherwise please separate each channel into separate image files (Example 1).
2. We prefer to receive a single file that includes properly grouped multiple images together, e.g. multi-tiff with z-stack or multi-tiff with multiple channels, if possible.
3. When an image is used for publication, it contains annotations or other additional marks, e.g. arrows, timestamps, scale bars, etc., please provide us the original images without such artifacts. If they were automatically recorded timestamps, scale bars, etc., and could not be removed in the settings by the microscope or related software, please provide the image as they are (Example 2).
4. When only part of the time-lapse microscope image sequence is used for publication in a journal paper, please provide us the whole sequence of time-lapse microscope images if possible (Example 3).
5. When a movie was created from a sequence of time-lapse images, please provide us the original time-lapse microscope images. A movie file often compress the original images and lose resolution and fidelity.

## Not recommended for submission to SSBD:database (Example 4)

1. Image used as a figure in a journal article, i.e. images are layout with legend/caption, will not be shared since the copyright of the images is most likely belongs to the publisher of the journal.
2. Files which contains images that were copy-and-pasted into software, such as MS PowerPoint, Adobe Photoshop, etc., they lose the original resolution and fidelity.
3. Screenshots from microscope related software or image viewing software, as they lose the original resolution and fidelity.
4. An image or a figure that are created by combining multiple images together, e.g. multiple images that are layout in a grid and combined to form a single figure.
5. Images with annotations, like arrows, characters, scale bars, coloring etc. that were artificially added to the images.
6. Images in which multiple channels have been merged into an image, i.e. the image could not be separated into multiple images for each channel.

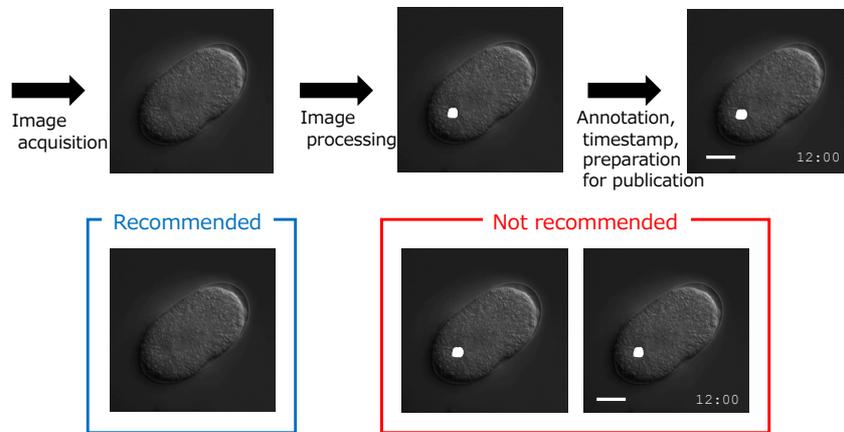
### Example 1: Images with multiple channels



\* Please provide a single image file which contains separated images for each channel

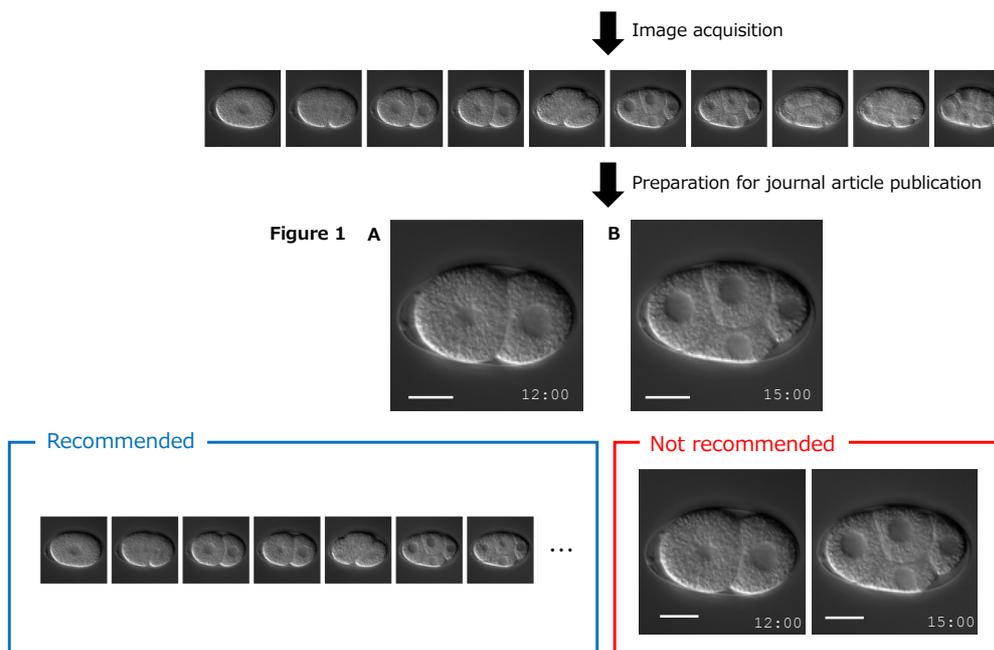
“Confocal microscopy images of neurons associated with glomerulus stained with Alexa 647 and EYFP expression in young Thy1-YFP-H mouse hemi-brain cleared with SeeDB” by Ke et al. is licensed under CC-BY

### Example 2: Image data that are image processed/with annotations



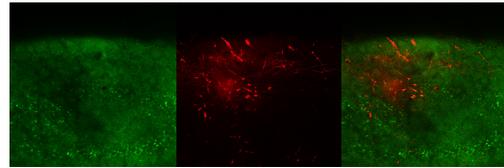
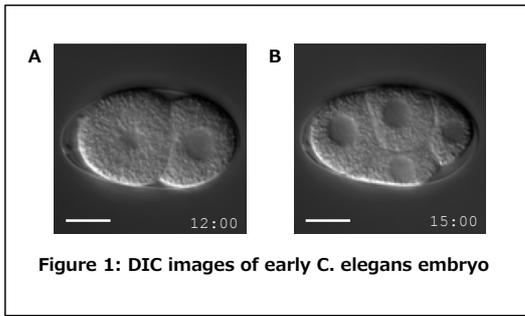
\* We accept images with annotations, such as arrows, scale bars, time stamps if they are automatically recorded  
 “DIC microscopy images of wild-type *C. elegans* embryo” by Kyoda et al. is licensed under CC-BY

### Example 3: Part of time-lapse image sequence is used for a figure in a journal paper



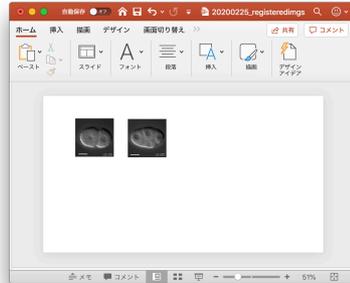
“DIC microscopy images of wild-type *C. elegans* embryo” by Kyoda et al. is licensed under CC-BY

Example 4: Not recommended images for SSBD:database



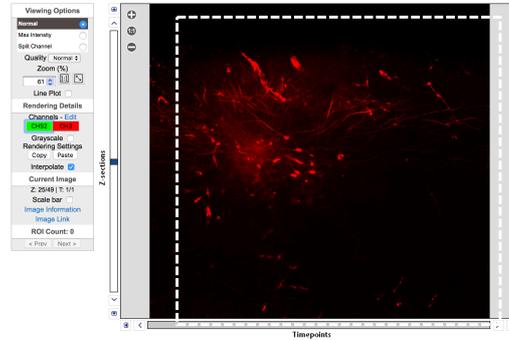
Combining multiple images into a single image

Figures in a published journal article



Copy-and-pasted into software that reduces quality of images, such as MS PowerPoint, Adobe Photoshop, etc.

“DIC microscopy images of wild-type *C. elegans* embryo” by Kyoda et al. is licensed under CC-BY



Screen capture/screenshot of an image

“Confocal microscopy images of neurons associated with glomerulus stained with Alexa 647 and EYFP expression in young Thy1-YFP-H mouse hemi-brain cleared with SeeDB” by Ke et al. is licensed under CC-BY