

Digital Image Editing, Processing and Analysis

Objective

- Understand which data content comprises a digital image
- Learn how to correctly handle scientific digital images to prevent data alterations and improve publication figures
- Do's and don'ts of publication figures
- Get an insight into efficient image processing and methods of analysis
- Preparing images for automatic analysis in ImageJ/Fiji

Description

This online workshop aims at teaching life scientists how to handle digital images from e.g. a microscope for the incorporation into a publication figure as well as image analysis. This includes some basic theory about digital images as well as methods for image processing and specific analytical purposes, such as correct contrast adjustments and other typical image modifications in a good scientific manner with least data alteration. Various background and lighting correction methods will be also taught in detail. Purpose of the analysis part is to learn how to extract interesting feature from an image, automatically count and measure objects as well as pixel intensities (e.g. based on fluorescent staining). There will be a strong focus on microscopic images but the techniques taught are general and widely applicable to different types of scientific images.

Additionally, the online workshop includes hands-on sessions and provides methods to save time while performing repetitive processing tasks on images.

The workshop material will be provided in digital form and covers all topics part of the course and some additional typical biological analysis procedures.

The course every life scientist working with images with a general toolbox to efficiently handle and analyze image data.

Methodology

The online workshop makes use of the professional software Fiji, which is freely accessible. This software will be provided and introduced in the course.

Trainer



Dr. Jan Brocher
BioVoxel, Ludwigshafen

- Offers teaching as well as consulting services and image integrity analyses
- Has broad practical experience in several biological research topics with a focus on imaging
- PhD in Biology (Molecular Biology) at the University of Würzburg
- PostDoc at National University of Singapore and at University of Heidelberg
- CEO of BioVoxel

Organizational Information

Language	English
Target group	Doctoral Candidates at all stages and Postdocs from Medical and Life Sciences
Date	Monday-Wednesday, 31 January - 2 February 2022, 9:00 – 15:30
Registration	For registration click here