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
- Get an insight into efficient image processing and methods of analysis (various topics, 1 full day)
- Preparing images for automatic analysis
- Do’s and Don’ts of publication figures

**Description**

This workshop aims at teaching young life scientists how to acquire and handle digital images from the microscope to the incorporation into the final publication figure. This includes some basic theory about digital images as well as methods for image processing and specific analytical purposes, such as correct contrast adjustments, correct resizing of images, background subtraction and lighting corrections. Purpose of the analysis part is to learn how to extract interesting feature from an image, automatically count and measure objects or measure intensities. There will be a strong focus on microscopic images but the techniques taught are very widely applicable to different types of scientific images. Additionally, the workshop includes hands-on sessions and provides methods to save time while performing repetitive processing tasks on images.

The course teaches knowledge and methods every life scientist working with images needs to learn as a basic toolbox to efficiently handle and analyze image data.

The workshop content is held as general as possible.

**Methodology**

The workshop makes use of the professional software Fiji, which is freely accessible. This software will be provided and introduced in the course. Participants will work on their own laptops.

**Organizational Information**

<table>
<thead>
<tr>
<th><strong>Language</strong></th>
<th>English</th>
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<tbody>
<tr>
<td><strong>Target group</strong></td>
<td>Doctoral Candidates at all stages and Postdocs from Medical and Life Sciences</td>
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<tr>
<td><strong>Date</strong></td>
<td>Monday-Tuesday, 21-22 January 2019, 9:00 – 17:00</td>
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<tr>
<td><strong>Registration</strong></td>
<td>For registration click here</td>
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