

## Digital slide scanning

**What is it?** Conventional methods used to visualize and evaluate results from histopathology-based analyses on tissue sections is typically conducted by visual inspection and photography of the staining results in regular microscopes. Although this can generate excellent data, it is also hampered by a range of significant drawbacks (including e.g. slow flow-through, highly work-intensive, challenging to extract and compare data between cases, risk for introduction of data bias when selecting field-of-view and fading of fluorophores/skewing of data).

Digital slide scanning is performed with help of robotic microscopes that can scan/copy entire tissues stained with chromogenic (and on some scanners also fluorescent) detection reagents at high speed and resolution (using 20x or 40x objectives). The resulting image files can then be uploaded to dedicated viewer software for unrestricted viewing (similar to viewing in Google Maps).

### What are the benefits?

#### Work-load and flow-through

- Very fast imaging, minimized hands-on time

#### Quality of image acquisition

- No/minimal fading of fluorophores during scanning and viewing

#### Viewing of data and collaboration

- Easy and fast zoom and panning
- Easy switch between multiple fluorophores while viewing
- Extract more info by simultaneous and synchronized viewing of multiple slides
- Share images digitally for remote viewing
- Fast export of images for presentation

#### Quantitative analyses

- Acquire data from larger tissue areas
- Minimized risk for introduction bias during image acquisition
- Stronger and more reliable data

**Our services.** We scan your slides using a 3D Histech 250 FLASH II digital slide scanner equipped with a Lumencor Spectra-x LED-lamp light source. It has the capacity to scan slide-mounted tissue sections:

- At up to 52x (brightfield) and 62x (fluorescence) magnification
- In multiple focal planes and if required collapse the layers for extended focus
- Stained with up to 6 different fluorophores

In more challenging cases we can also image your slides using a ZEISS AxioImager Z1 microscope equipped with an Apotome. We may also, through collaborations, support you with image acquisition, using confocal and STED microscopes.



