

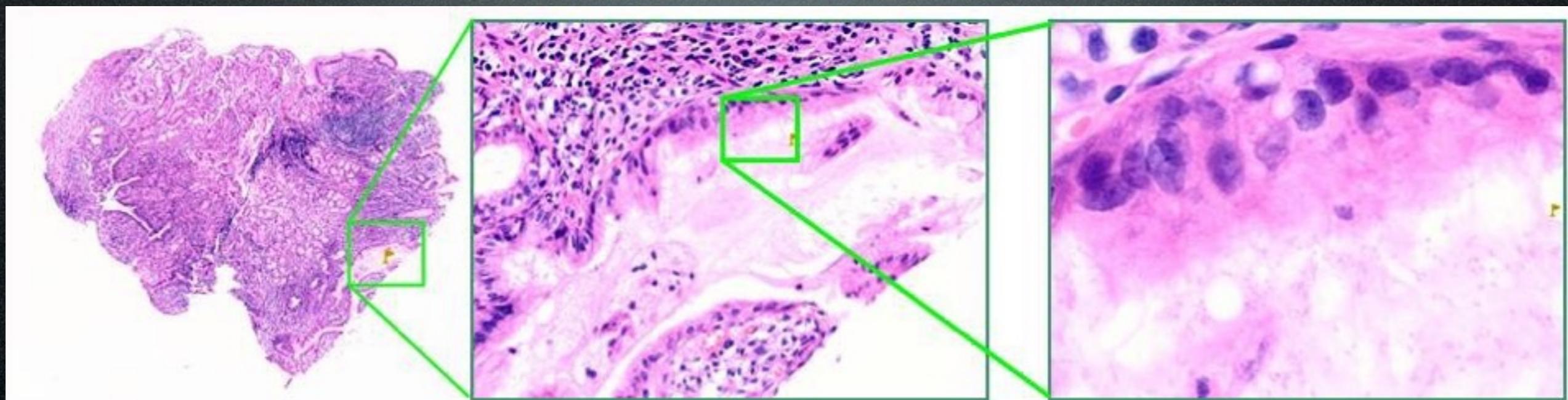
OLYMPUS VS120



Virtual Slide System

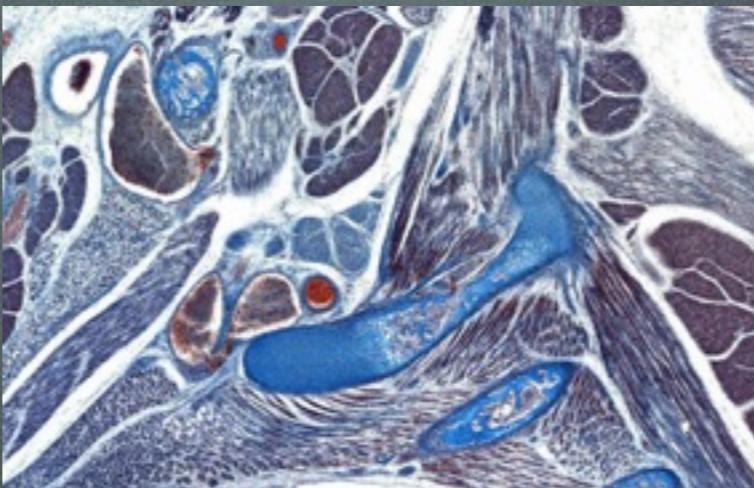
Virtual Slide System

Just Like Google Map

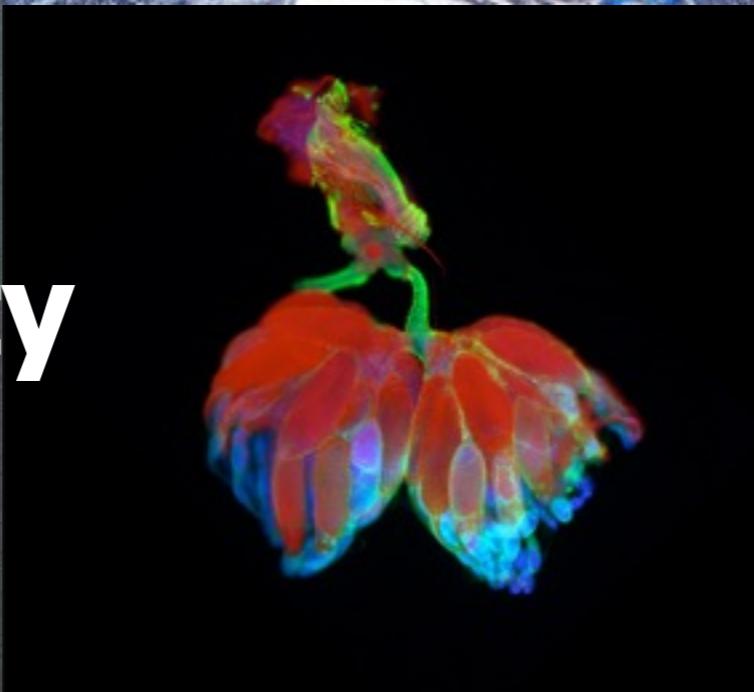


VS120

1. Hardware



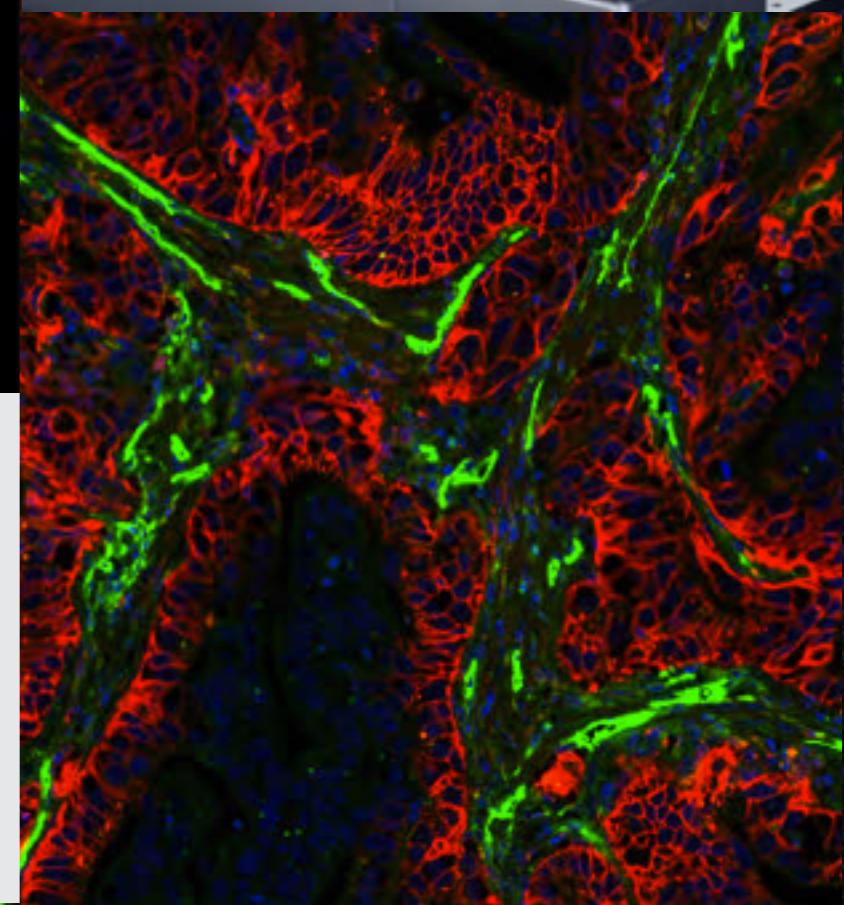
2. Software



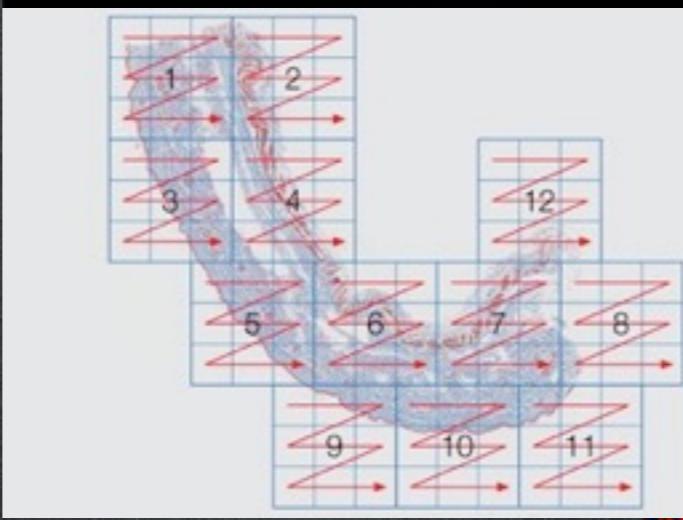
3. Expandability



4. Analysis



5. Summary



VS120-Concept

1.Image quality

2.User Experience

3.Expandability



Image quality

Objective
CCD



Scan method



1.1 Objective



UPlanSApo 40X

N.A. 0.95
0.33 μm/pixel

預覽用鏡頭



1.2 Bright field Imaging CCD

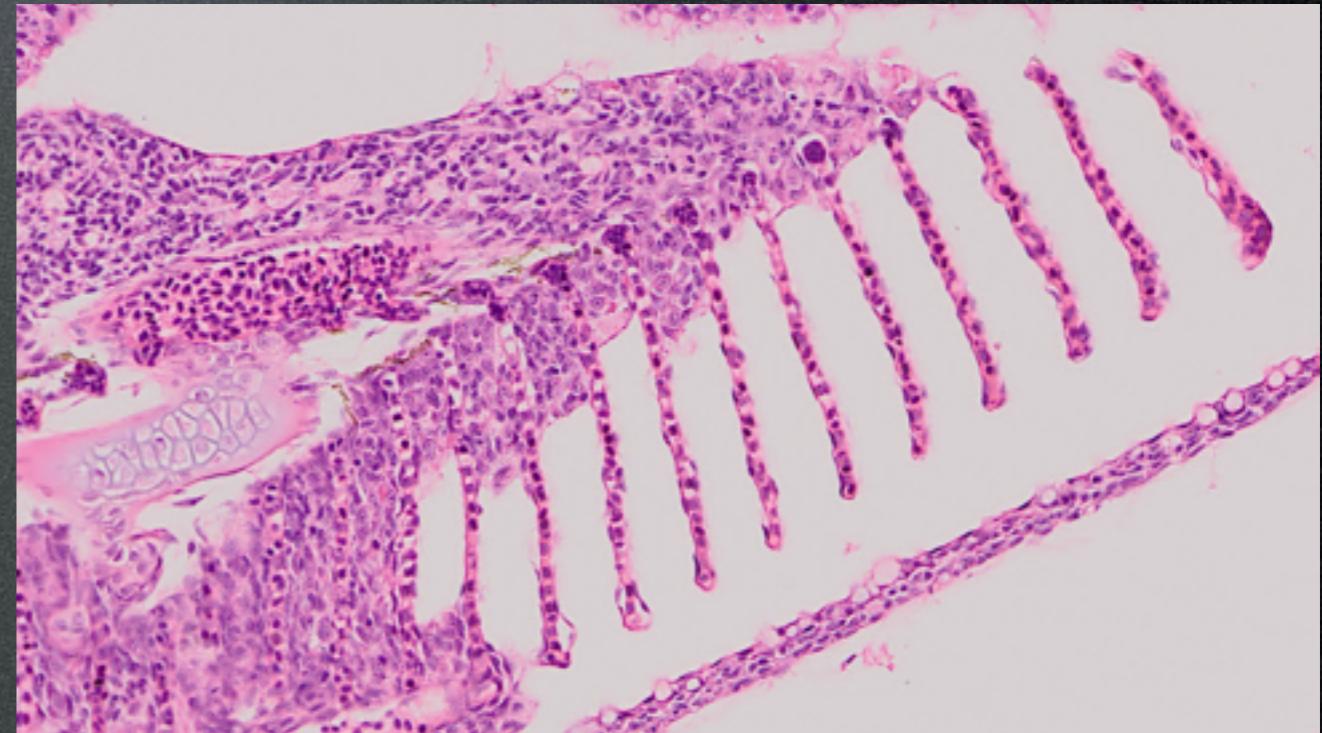
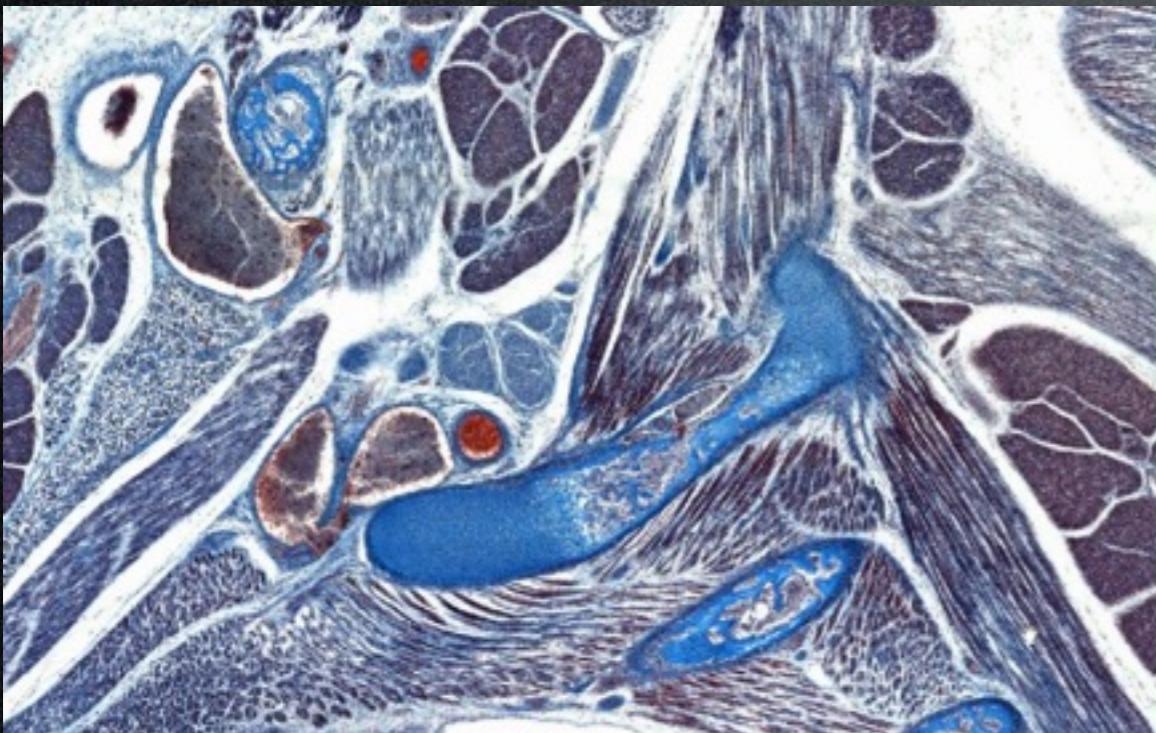


Sensor: Sony ICX 625

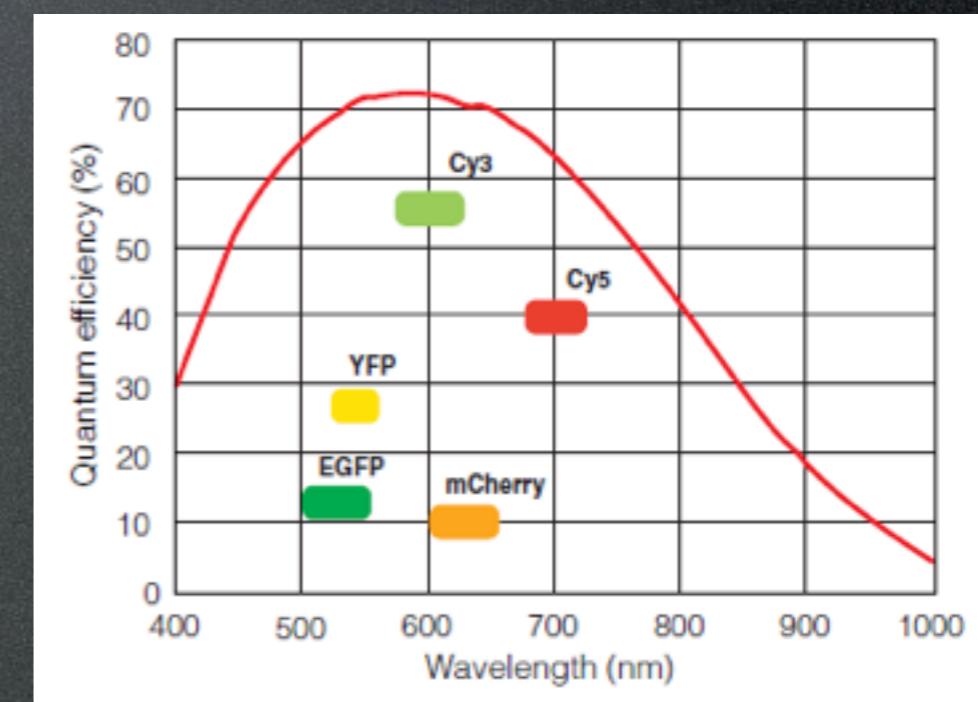
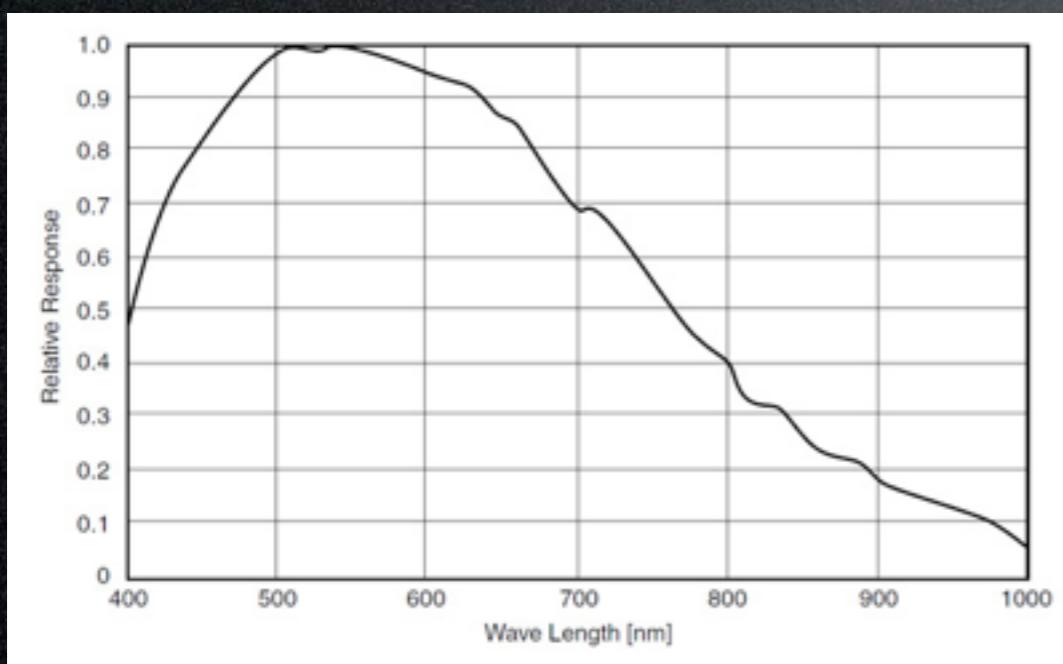
Resolution:2452 x 2054

Pixel size: 3.45 x 3.45µm

Analog-to-Digital Converter | 4 bits



1.3 Fluorescence Imaging CCD



1.4 Scan method

Line sensor method

Area sensor method



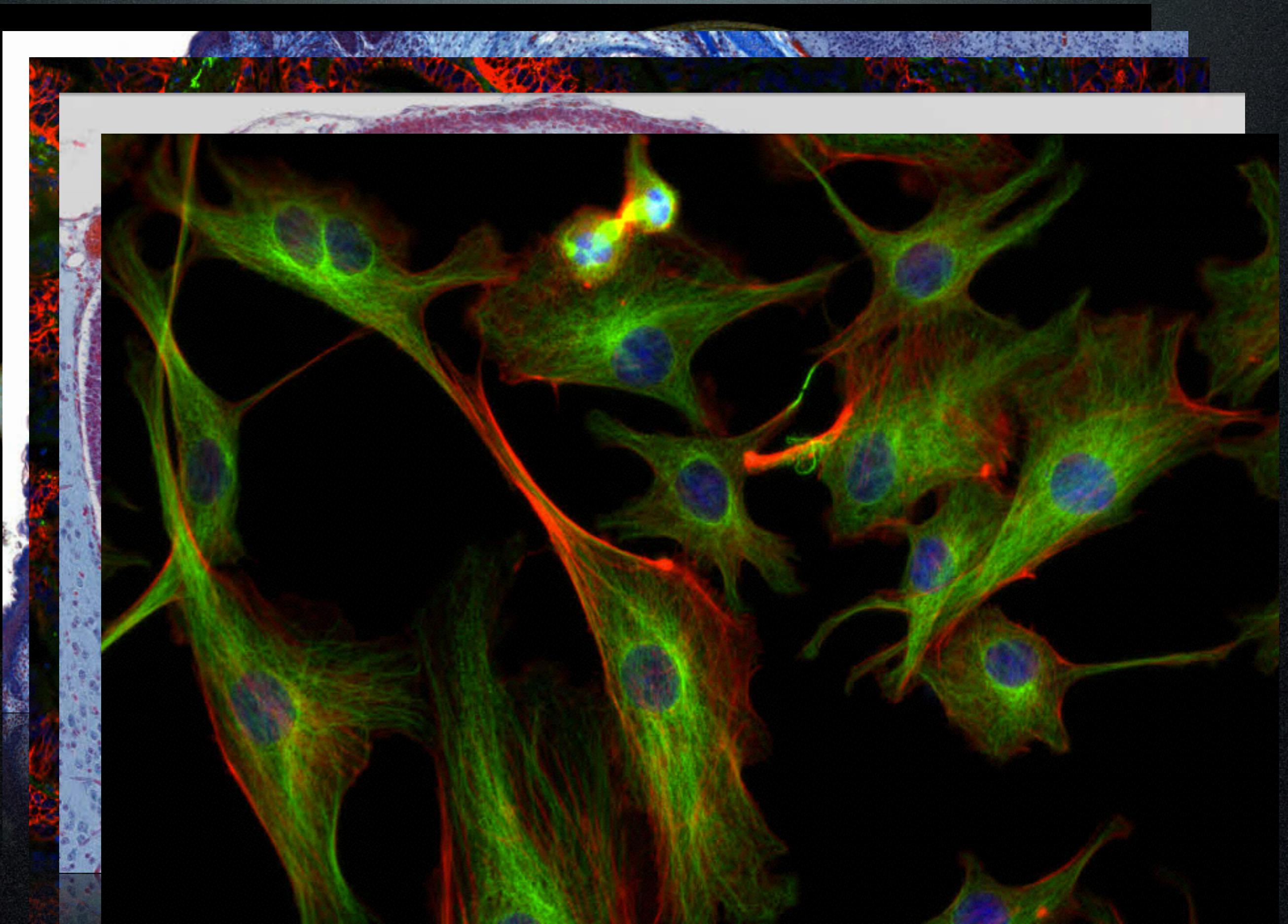
Speed: ○

Resolution: △

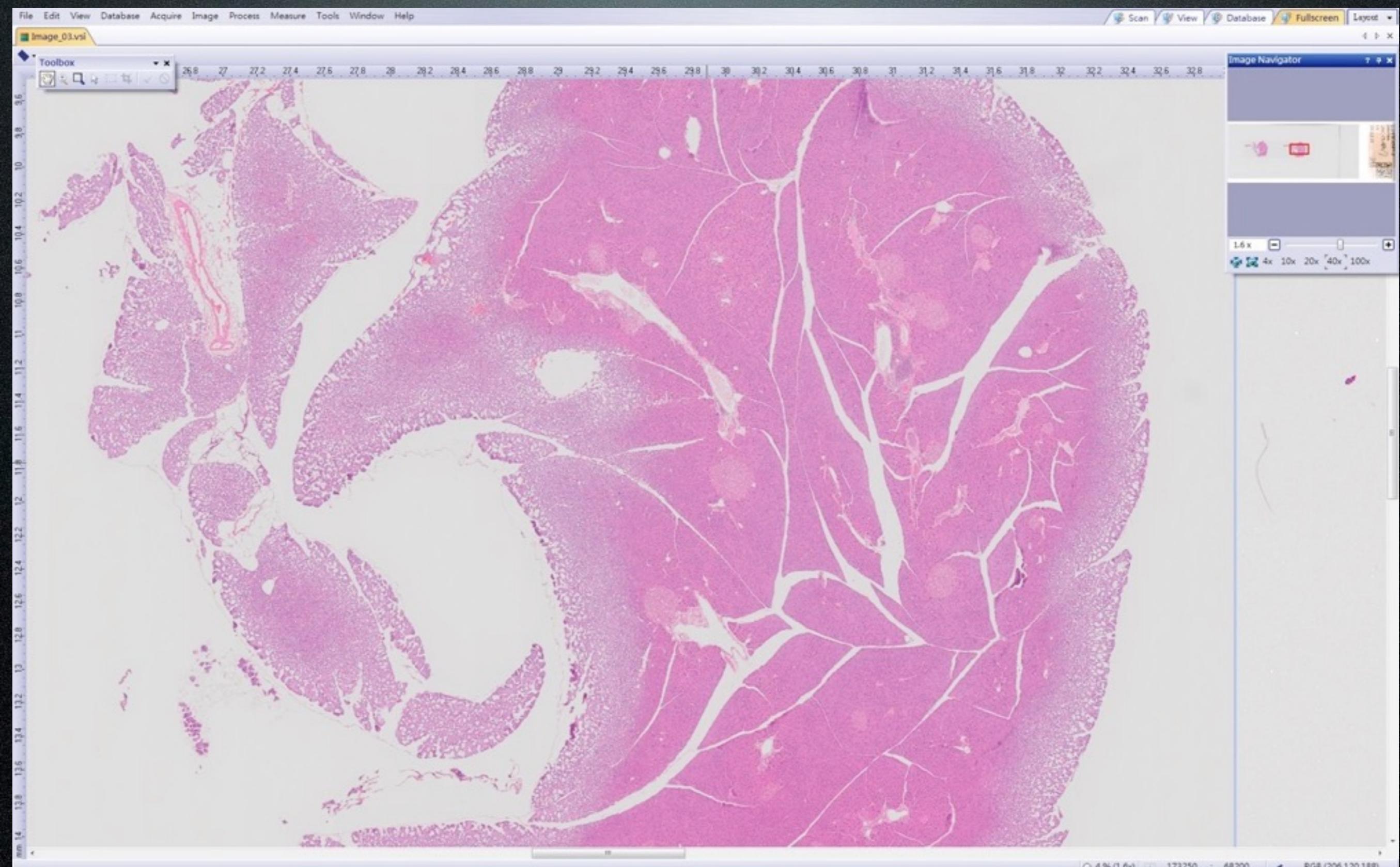
Speed:○

Resolution: ○

VS120 BF/FL Images



2-1 Software GUI

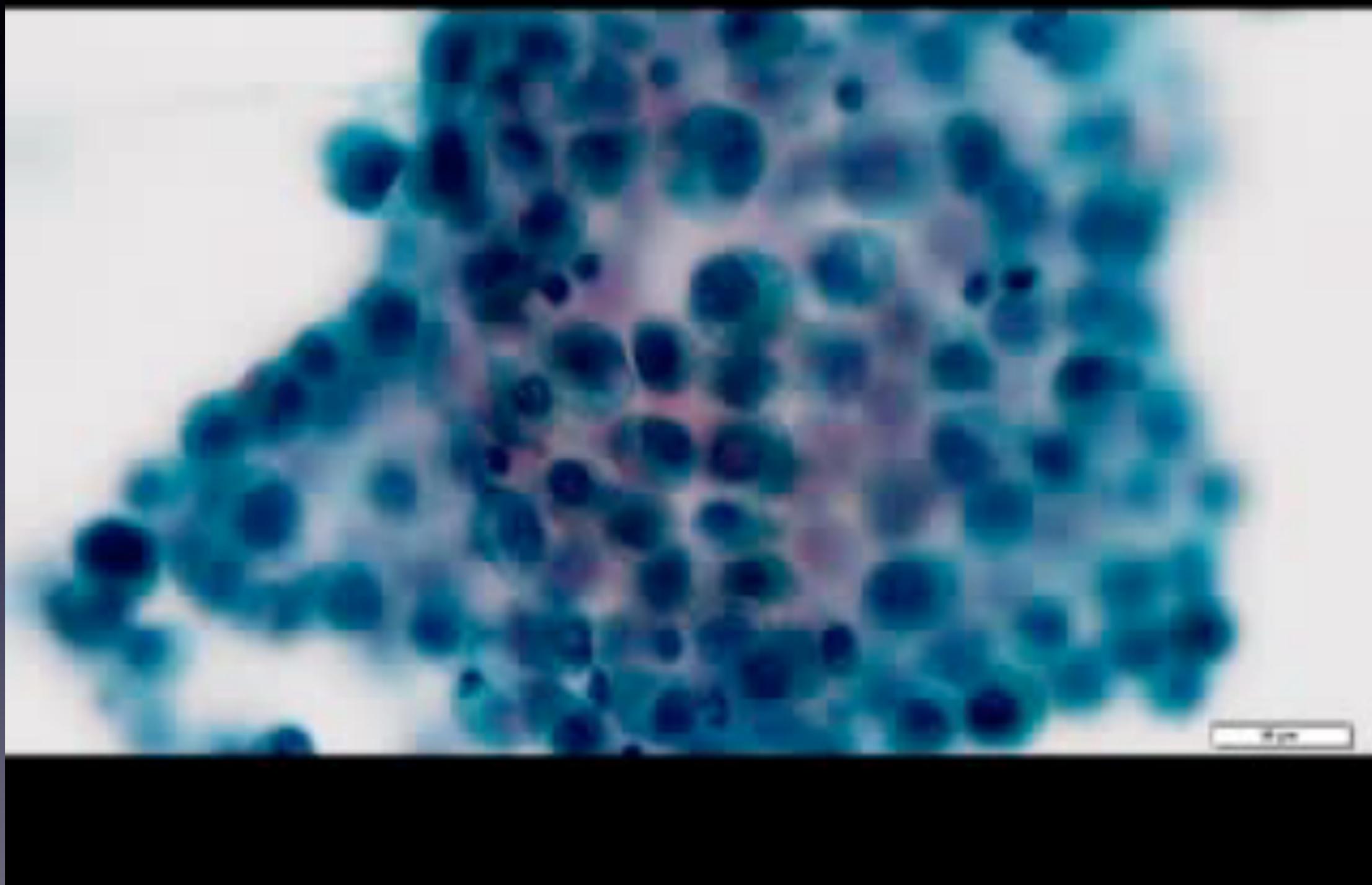


Easy to use, flexibility

2-2 EFI(Extended Focal Image) scan



2-3 Virtual-Z scanning



VS120 Z-stack Virtual Slide image

2-4 TMA(Tissue Micro Array) scan



Expandability



Network server

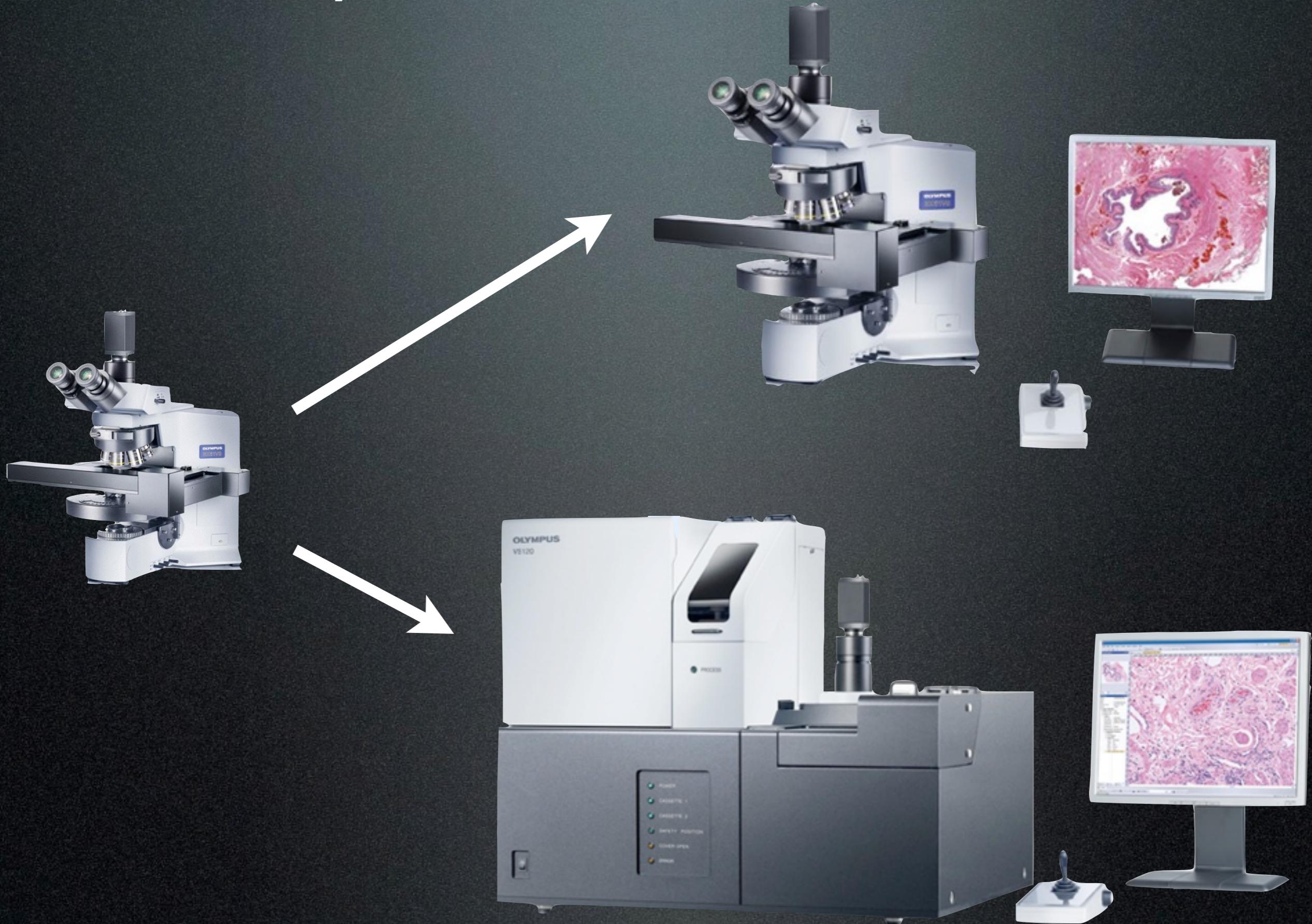
Observation method

Fluorescence

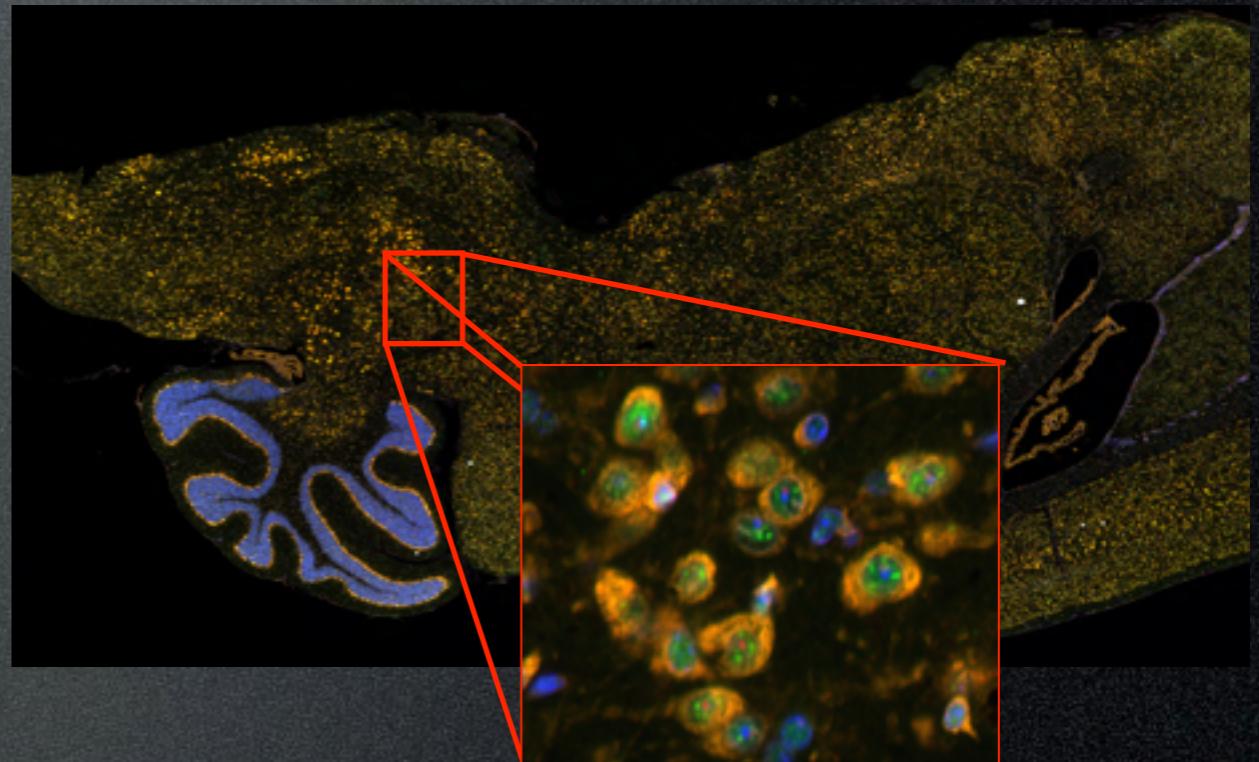
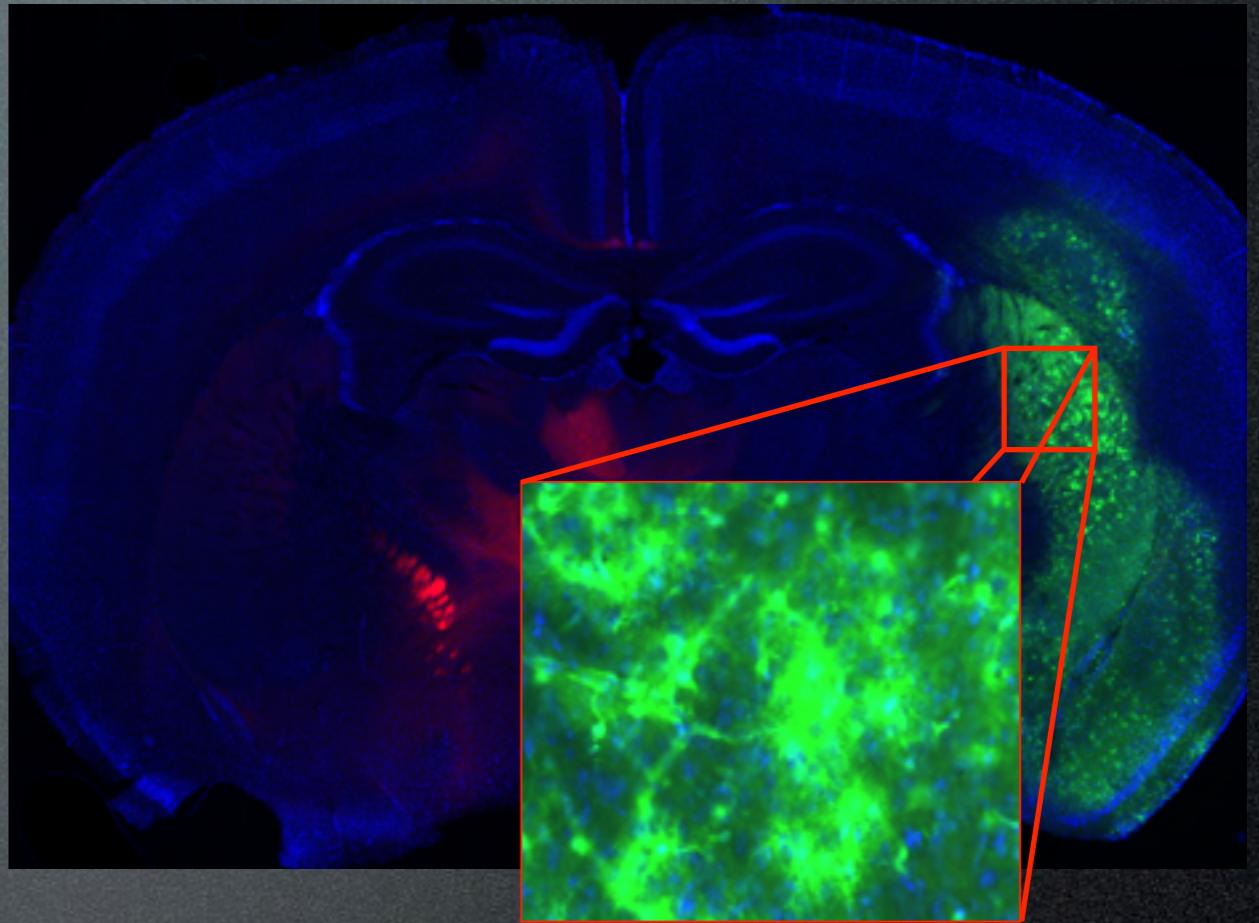
Analysis software

100 slides loader

3-1 1 to 6, or 1 to 100 slides



3-2 Fluorescence image



Fluorescence

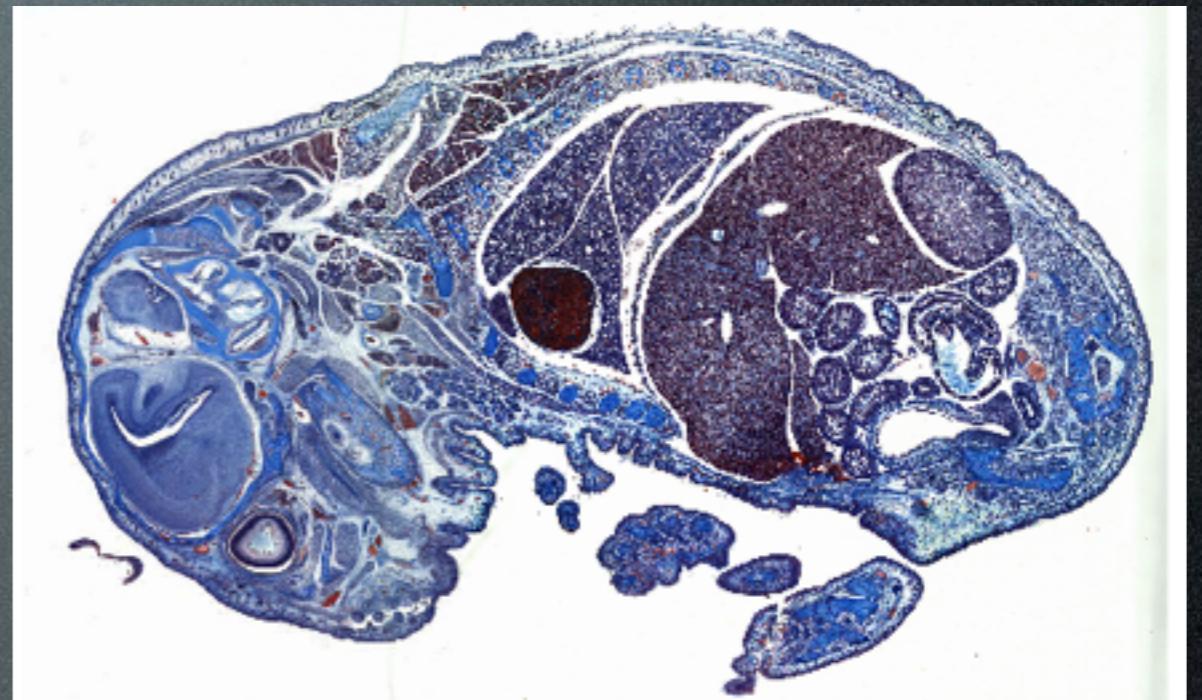
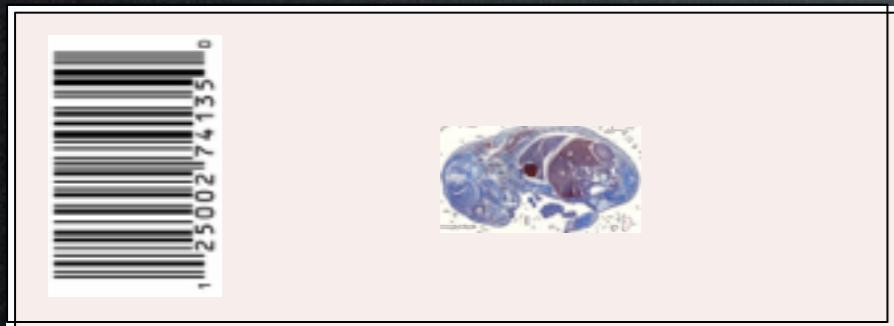
8 different filters

High-speed wheel

3-3 Objectives, filters, methods

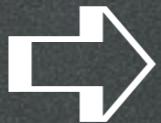


4-1 Analysis software



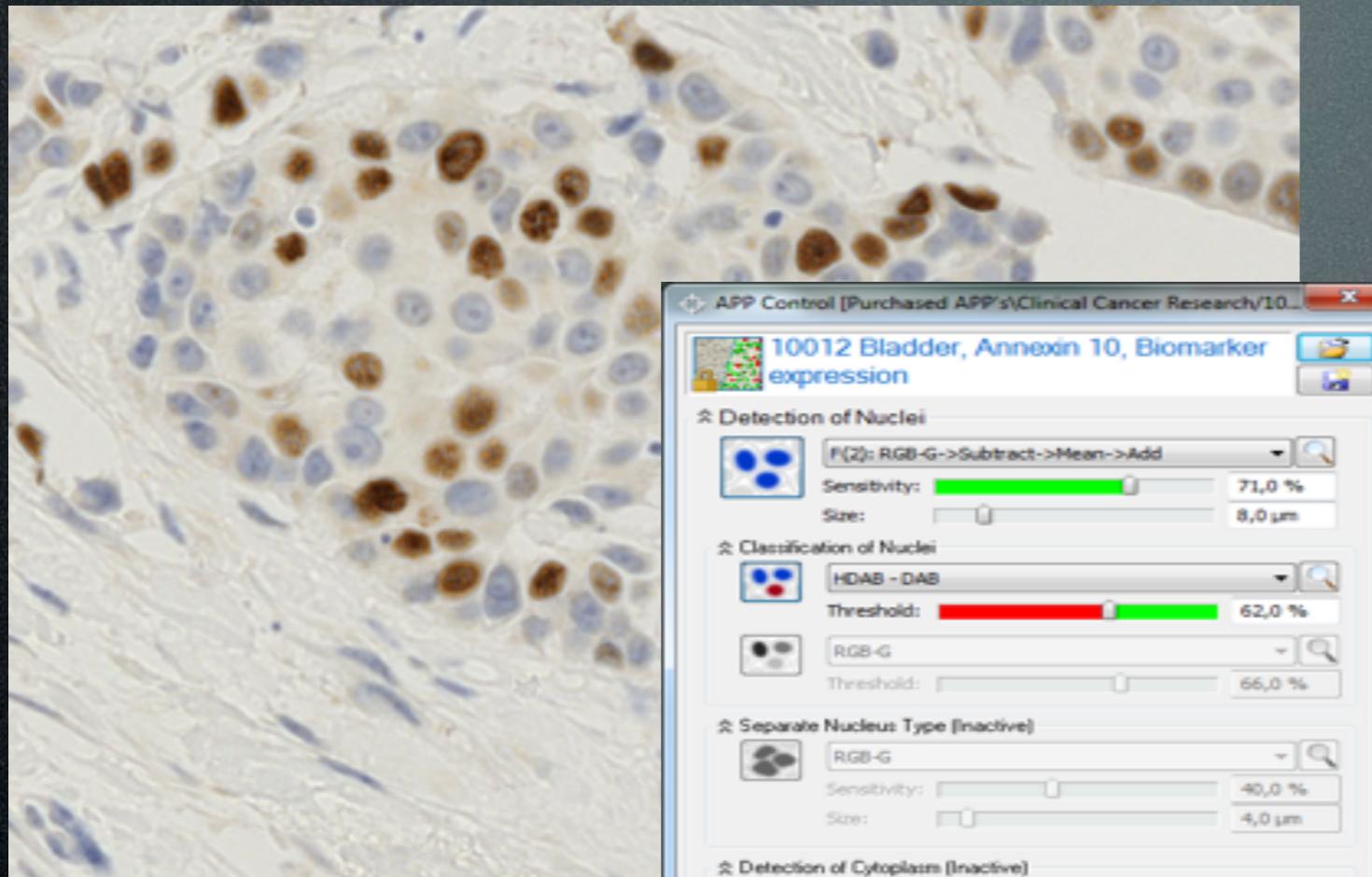
Documentation

Image Analysis



Useful Data

4-2 Image Analysis



APP Control [Purchased APP's/Clinical Cancer Research/10...]

10012 Bladder, Annexin 10, Biomarker expression

Detection of Nuclei
F(2): RGB-G->Subtract->Mean->Add
Sensitivity: 71,0 %
Size: 8,0 µm

Classification of Nuclei
HDAB - DAB
Threshold: 62,0 %
RGB-G
Threshold: 66,0 %

Separate Nucleus Type [inactive]
RGB-G
Sensitivity: 40,0 %
Size: 4,0 µm

Detection of Cytoplasm [inactive]
RGB-R
Threshold: 0,0 %
Width: 25,0 µm

Detection of Membranes (Inactive)
RGB-B
Sensitivity: 60,0 %

Detection of Gene Probes (Inactive)
RGB-R
Sensitivity: 66,0 %
Size: 2,0 µm
RGB-G
Sensitivity: 66,0 %
Size: 2,0 µm

Training completed for detection of nuclei.

Result Value

- Nuclear Area
- Positive Area
- Positive Area Fraction
- INT
- Expression

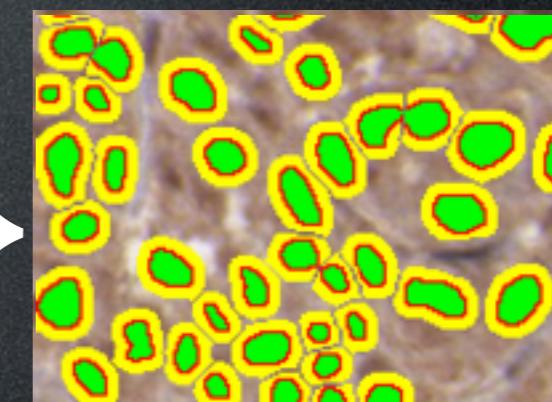
Copy

Preview

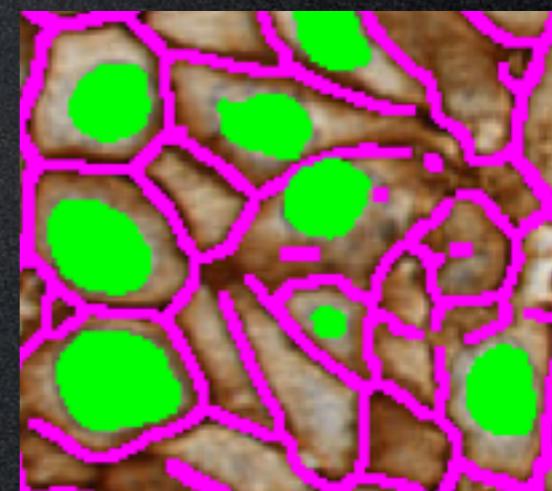
This screenshot shows the 'APP Control' software interface for image analysis. It displays a histogram at the top and several detection parameters for 'Nuclei', 'Classification of Nuclei', 'Separate Nucleus Type', 'Cytoplasm', 'Membranes', and 'Gene Probes'. The 'Nuclei' section includes a formula dropdown (F(2): RGB-G->Subtract->Mean->Add), sensitivity (71,0 %), and size (8,0 µm). The 'Classification of Nuclei' section includes 'HDAB - DAB' and 'RGB-G' with their respective thresholds. The 'Separate Nucleus Type' section is set to inactive with RGB-G parameters. The 'Detection of Cytoplasm' section is also inactive. The 'Detection of Membranes' section is inactive with RGB-B parameters. The 'Detection of Gene Probes' section is inactive with RGB-R and RGB-G parameters. A message at the bottom indicates 'Training completed for detection of nuclei.' Below the interface is a table with results: Nuclear Area, Positive Area, Positive Area Fraction, INT, and Expression. Buttons for 'Copy' and 'Preview' are also present.



nuclei



cytoplasm



membrane

Summary

OLYMPUS VS120

1. The excellent image quality

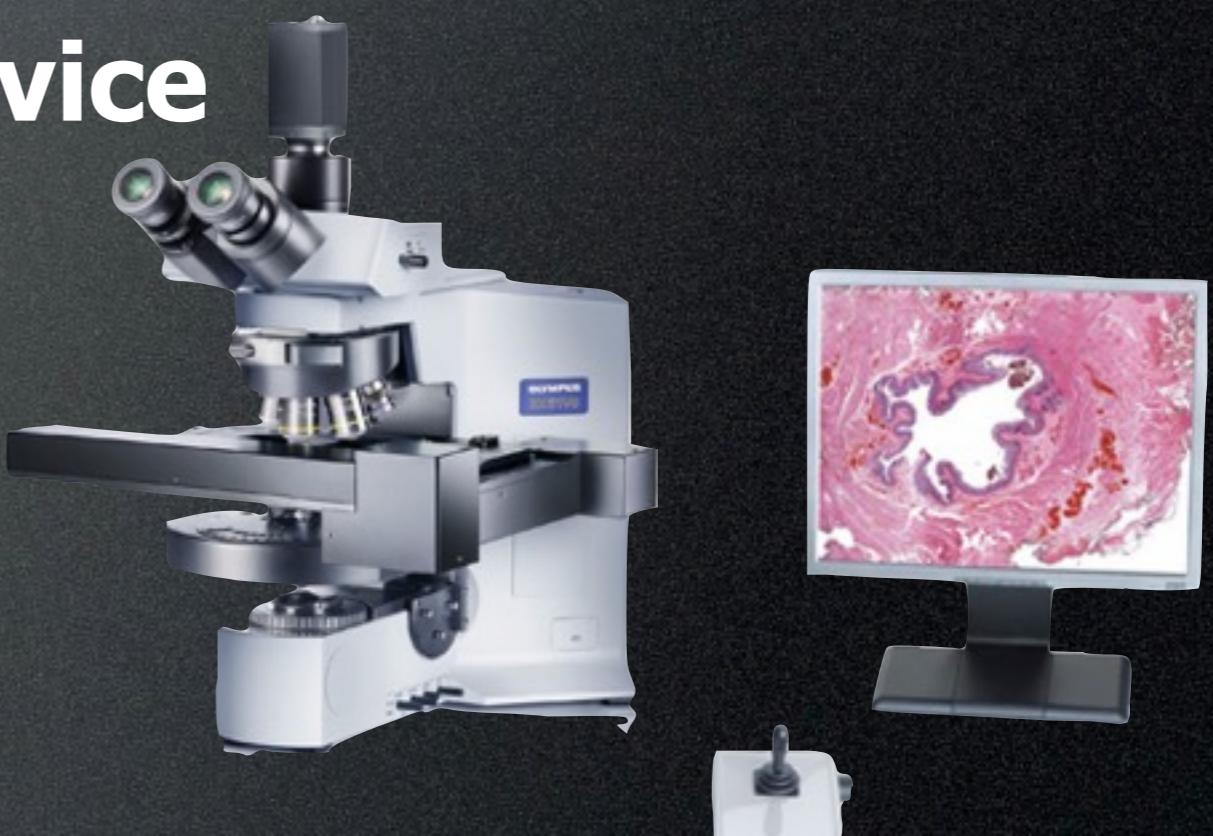
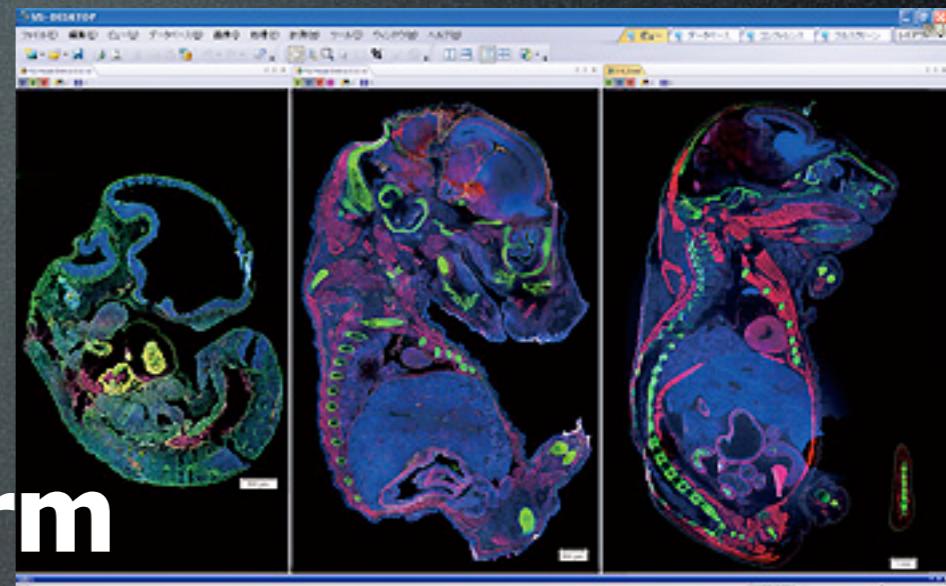
2. Real microscope scanner

3. Powerful, expendable platform

4. Multiple observation method

5. On-site support and service

6. Free software upgrade



Thank you for your time!