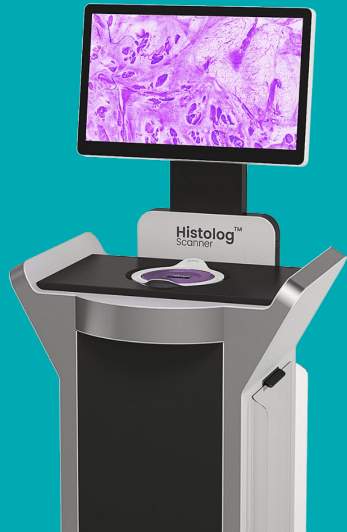




SamanTree
Medical SA

Morphological Structure Analysis System



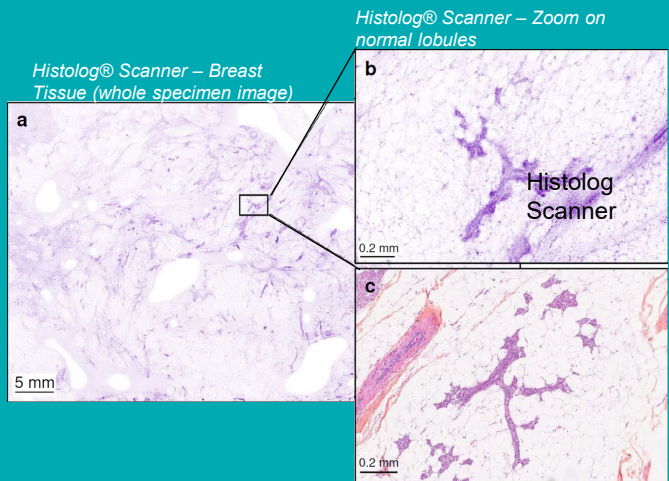
ICD 10 Coordination and Maintenance Committee Update
March 2025

The Histolog[®] Scanner

The only device utilizing parallel confocal imaging to deliver histology-like images rapidly without the need for resource intense processing.

Touch screen

Real time tissue analysis



High-resolution: 2 μ m resolution to provide histology-like images



Results in minutes: 15s for specimen preparation and 50s for full-resolution image (large field view of 4.8x3.6 cm)



Easy-to-use platform: plug and play device with quick learning curve for system and image analysis



Remote workflow: Digital images, enabling remote assessment



Proprietary Confocal Microscopy Technology

Confocal microscopy

onion
slide
ng

Detector



Laser



Beam
splitter

Lens

↑ Z-control

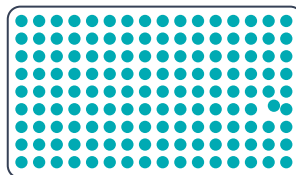
Micro-optics

Confocal microscopy was
miniaturized using micro-optics
(EPFL, 2010)

- miniaturized

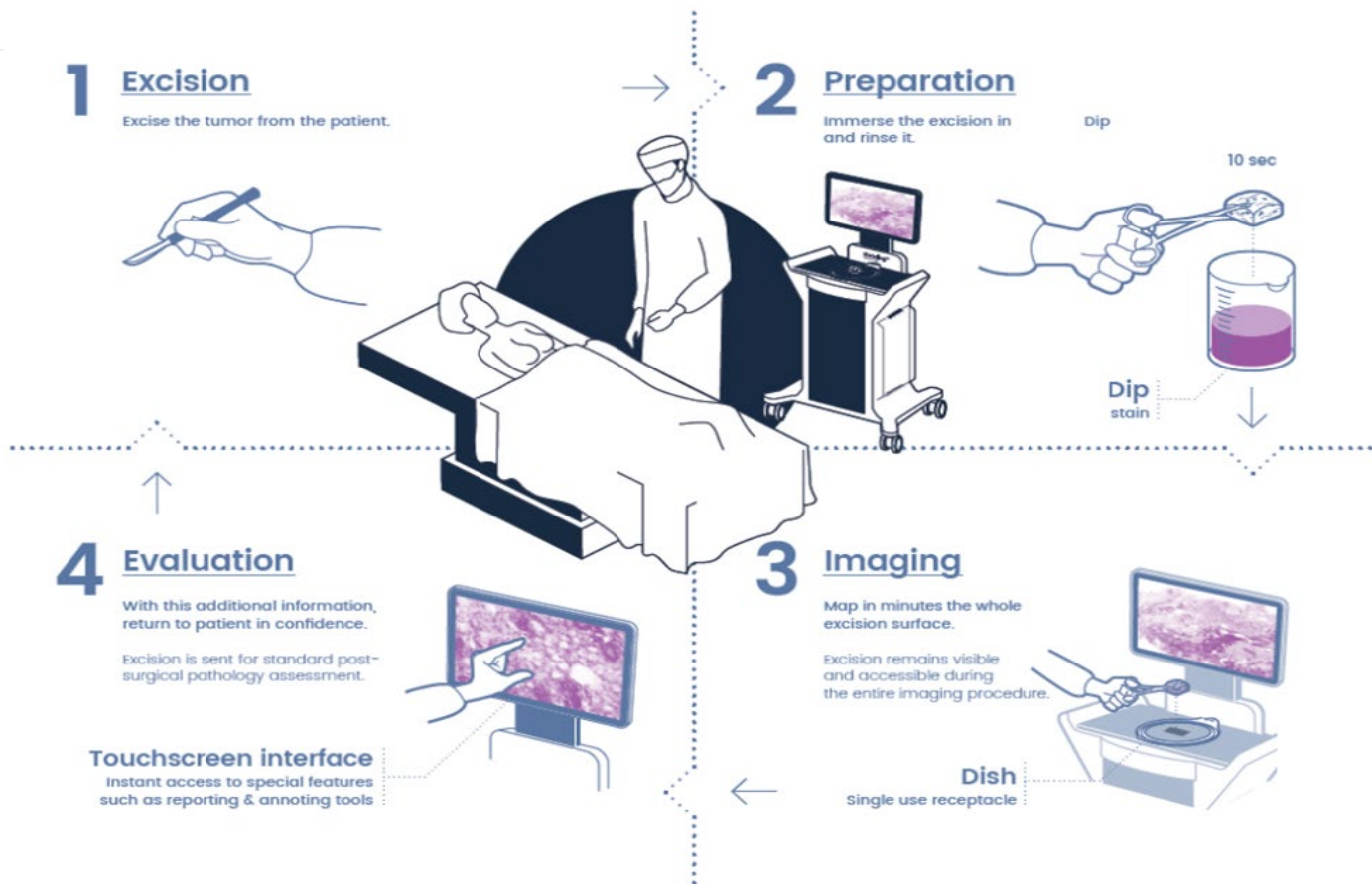
30,000 micro-objectives

To enable real-time large
specimen scanning with the
Histolog® Scanner



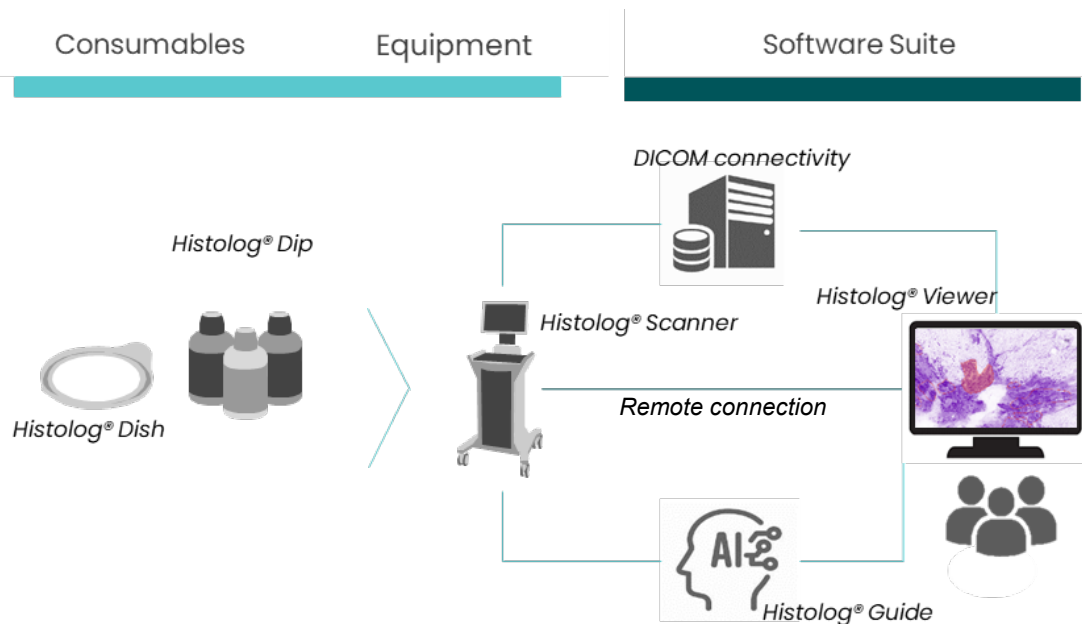


Ex Vivo Imaging for Decision-Making





Histolog[®] Digital Solution



Complete proprietary ecosystem & Digitalization of the workflow

- Accelerate adoption in surgery
- Remotely connected surgery and digital pathology



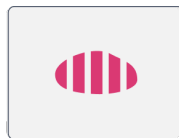
Bringing decision-making to point of care

Standard steps for Frozen Section

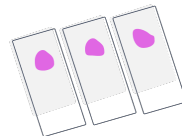
☐ Point of care assessment



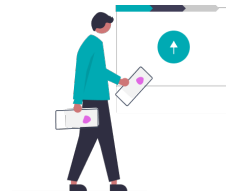
Send specimen to pathology lab or send pathologist
Inefficient



Specimen processing
Cutouts prone to sampling effect



Slide mounting and inking
Requires complex infrastructure and is a slow process



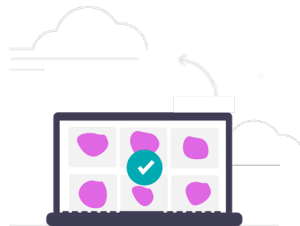
Manual digitization
Expensive

Histolog steps to getting the gold standard

☒ Point of care assessment



Fresh specimen scanning
In 1 minute during surgery



Digital images
DICOM and remote workflow



Clinical Literature



Prostate

Prostate cancer detection as good as intraoperative gold standard (NeuroSAFE) ¹⁻²

85% reduction of time (8 min vs. 50 min) ¹

>92% detection rate of prostate cancer by pathologists ¹⁻²



Breast

All main types of breast cancer detected (IDC, DCIS, ILC) ³⁻⁶

70% reduction of incomplete surgeries ⁴

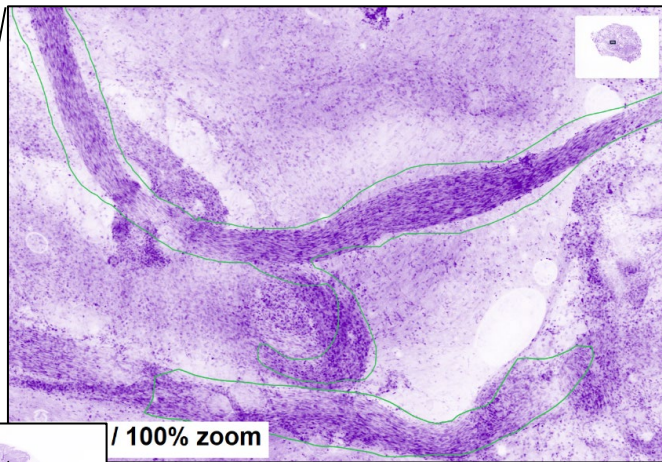
>95% detection rate of breast cancer by pathologists ^{4, 6}

- **No complications or adverse events on patients in clinical studies or commercial use**
- **Prostate Cancer 73%-91% sensitivity and 94% - 100% specificity^{1,2}.**
- **Breast Cancer 80.95% sensitivity and 99.51% specificity⁷.**

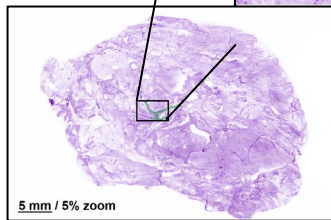


Prostate Images

Healthy Tissue



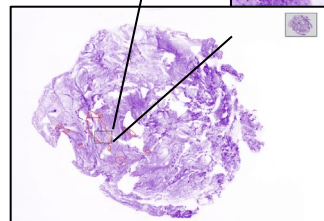
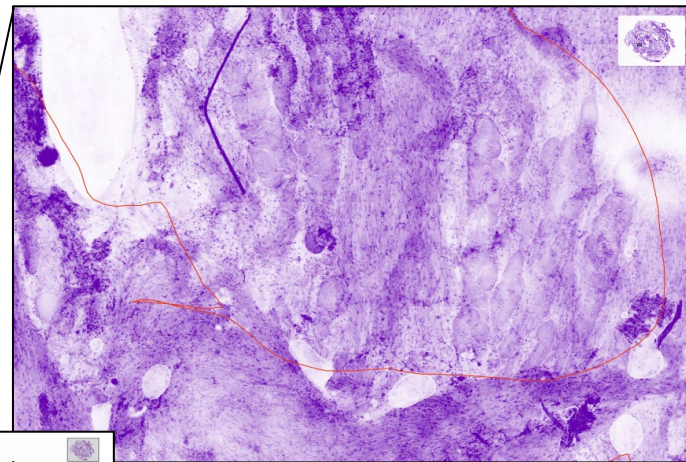
/ 100% zoom



5 mm / 5% zoom

Normal capsula is seen with some connective tissue. Large nerves are seen within the green annotations.

Cancer Tissue

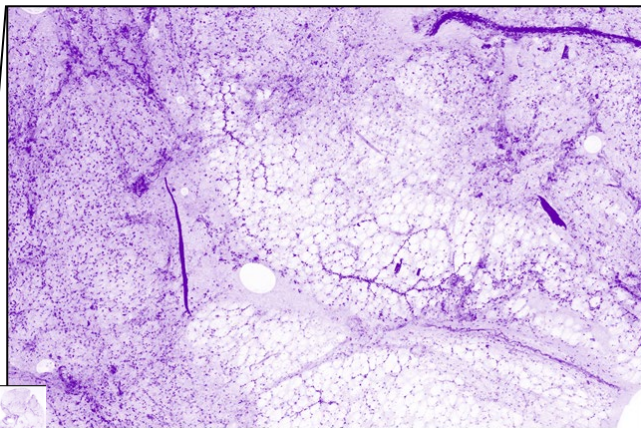


Cancerous glands are seen in the image as pale large tubular patterns presenting an epithelial texture.

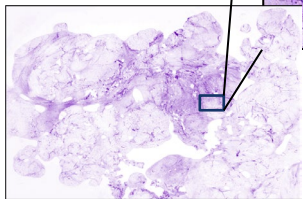


Breast Images

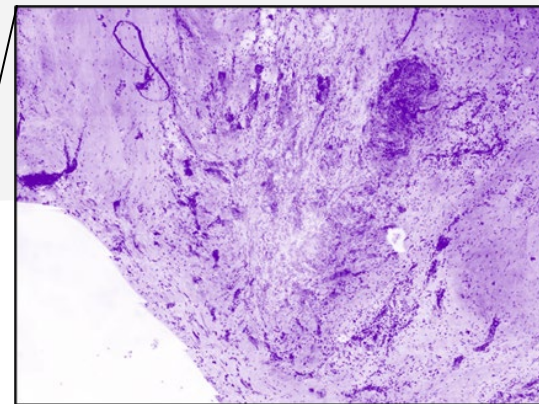
Healthy Tissue



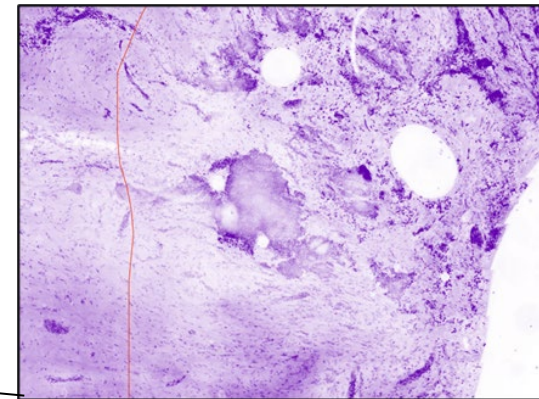
Normal tissue composed of fibrous fatty tissue with blood vessels



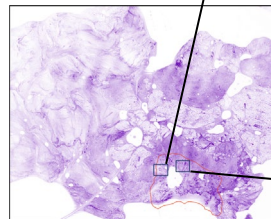
Cancer Tissue



Invasive Ductal Carcinoma with tumor nests and Indian files of cancer cells within connective tissue



Ductal Carcinoma In Situ seen as solid assembly of cancer cells with epithelial pattern





Identifying the Histolog[®] Scanner in the Medical Record

The Histolog[®] Scanner received FDA Clearance on August 19, 2024.

Use of the Histolog[®] will be documented in OR procedure note, surgeon operative note, or pathology report. The technology may also be reported in other EMR records, such as the nursing documentation or record of supplies/equipment used in OR cases in the patient record. The image would be uploaded and saved in the EMR record.

Documentation may refer to:

- Histolog[®] Scanner
- Point-of-care cancer margin analysis system
- Point- of-care rapid specimen analysis
- High- resolution morphological structure analysis
- Interoperative margin assessment





Thank You