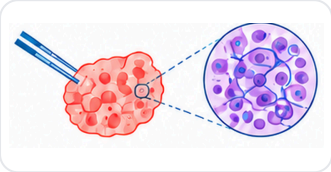
IDmetrix

INFOGRAPHIC
HISTOFRAME PULMO · DIGITAL PATHOLOGY

AI Biopsy Image Processing

From biopsy sample to clinical report — **the model proposes, the pathologist decides.**

1 Biopsy Sample



Tissue is obtained by needle or surgical biopsy.

- Sample labelled and tracked

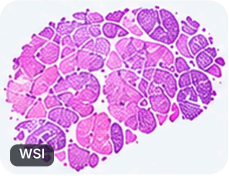
2 Slide Preparation & Staining



Fixation, thin sectioning and staining on a glass slide.

- Histological (H&E) staining

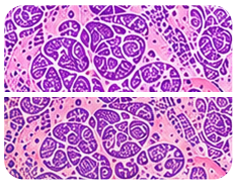
3 Digital Slide Scanning



A high-resolution scanner turns the slide into a whole-slide image (WSI).

- Tissue and cellular level, e.g. 40×
- Scanner agnostic

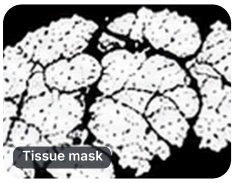
4 AI Preprocessing & Quality Control



Colour normalization, artefact removal and quality assessment.

Focus · Stain · Artefacts · Coverage

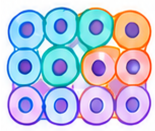
5 Tissue & Cell Segmentation



Tissue regions and individual cells are identified; the background is removed.

- Tumour, stroma and immune cells
- Glands and vessels

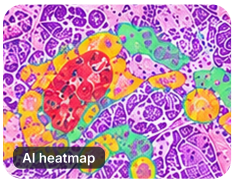
6 Feature Extraction



Deep-learning models compute quantitative features from tissue and cells.

Morphology · Texture · Cell density · Spatial patterns

7 AI Classification & Biomarker Analysis

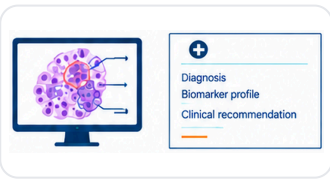


Tissue is classified and biomarker status predicted, shown as a confidence heatmap.

Normal · Benign · Suspicious · Malignant

- Subtype classification and grading
- Biomarkers, e.g. PD-L1, Ki-67

8 Pathologist Review & Clinical Report



The pathologist validates the AI results and signs a structured report.

- Diagnosis and biomarker profile
- Clinical recommendation

Higher Accuracy
98.2% accuracy detecting cancer in histological images.

Faster Workflow
Minutes instead of manual hours.

Quantitative Insights
Objective, reproducible measurements.

Standardization
Consistent analysis and reporting.

Better Outcomes
Supports precise, personalized treatment.