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PRODUCT BROCHURE

**We Are Creating
A Future Of Intelligent Pathology**

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Serve For Pathology
深耕病理
服务病理

Dedicated To Pathology
深耕病理

Rooted To Pathology
专注病理

Focus On Pathology
扎根病理

Company Introducton



Company Introducton

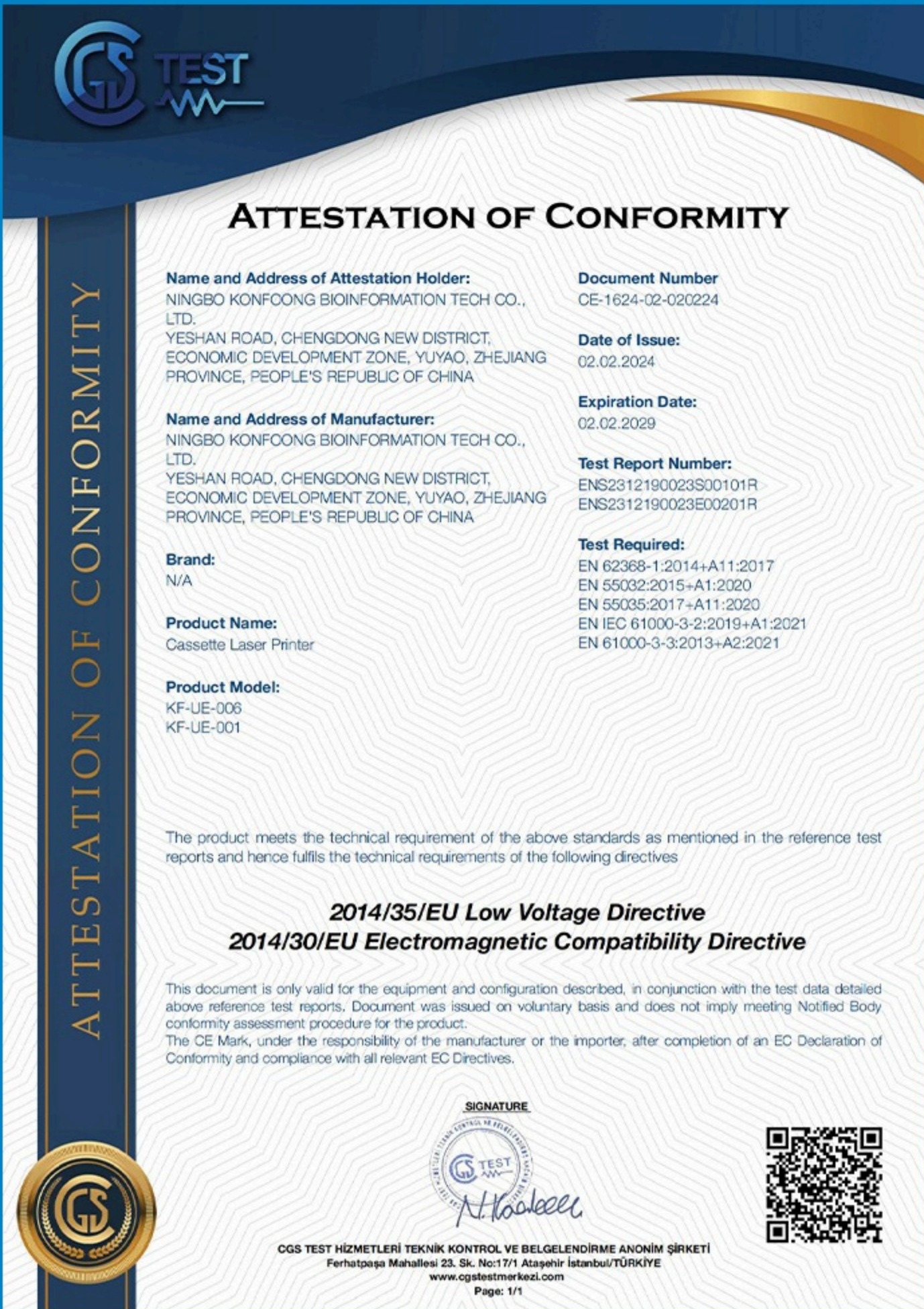
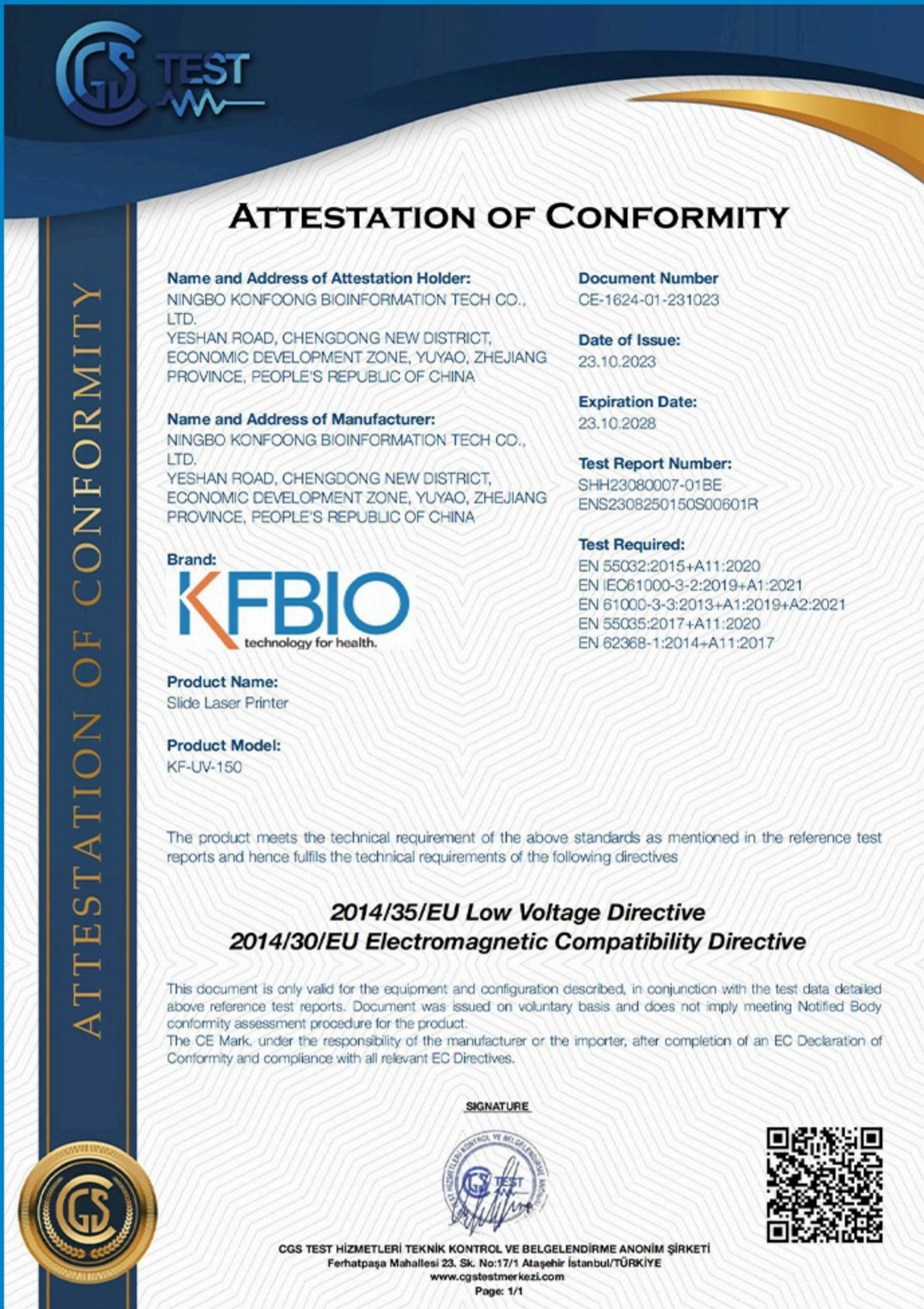
KONFOONG BIOINFORMATION TECH CO.,LTD(KFBIO) established in Aug 2011, KFBIO aims to promote the development of digital pathology with the latest technology and concepts.

KFBIO, the innovative national high-tech enterprise, one of the few advocates of the end-to-end digital pathology solution in China, is devoted to digital pathology. KFBIO has been in the digital pathology industry for over ten years, and has developed five business segments including the digital pathology slide scanners, telepathology platform, pathology AI, routine pathology equipment and pathology diagnosis services, providing the most complete end-to-end digital pathology solution to meet different needs of customers.

Milestones

- 2013
KFBIO digital pathology slide scanner registered as CDFA Class II Medical Devices Certificate
- 2014
KFBIO digital pathology slide scanner achieved CE
- 2016
Certificated as National hi-tech enterprise. Achieved A round financing
- 2018
Certificated by EN ISO 13485:2016 System
- 2019
Obtained the medical device registration certificate for Cervical Canner and 'TB AI Screening System
- 2020
Achieved B round financing (Intel Capital lead invertment)
- 2022
KFBIO digital pathology slide scanner upgraded CE-IVDR certificate
- 2024
The new factory building is completed and moved into, with a total area of 30,000 square meters
- ...

Certificates



KFBIO Scanner Series

KF-PRO series

High-quality model
for clinic and scientific research



KF-PRO-005

AI-assisted Analysis
High-matched Mode



KF-PRO-020

High stable model
for clinic, education and research



KF-PRO-040

High-throughput model
for large hospitals and labs



KF-PRO-120

Full Digital Pathology Labs
Basic Model



KF-PRO-400



High Speed

25s scanning (15mm*15mm,20x),
rapid frozen section diagnosis,
over 200,000 cases



Z-stack Scanning

Support **Z-stack** scanning to fuse a
high-quality slide, support single
layer viewing



Cloud Configuration

Provide free cloud for storage and
one-click sharing



Support Different Slides

Support **precise scanning** of light
color staining, uneven thickness,
small tissue slides



Support Different Sizes

1*3 inch, 2*3 inch, 6*8 inch,
automatic recognize tray model to
adjust parameter



Batch Loading

Support **tray loading** and slide
box loading



High Stability

Electric condenser, strong light
source and **high-sensitive camera**
ensure excellent scanning performance



High Flexibility

Support small and large batch
scanning for remote consultation



AI-enhanced Imaging

Slides recognition improvement, color
contrast of cell nucleus enhancement,
image recognition accuracy improvement



Multi-site Management

Central archive management for
different working scenarios and
centralized AI analysis



High Speed

15nrrn*15nrrn, 20x, 15s only



Stable Scanning

Magnetic suspension motor drive
99.85% slides scanned successfully



High Fidelity

High resolution 0.25 um/pixel
(20x), 0.125um / pixel(40x) WSI
scanning



Top Accessories

OLYMPUS top objective lens
CHROMA narrow band filter



High Precision

50nm positioning accuracy
Support 80x magnification



Professional Services

Customize products quickly,
Provide in-time support



High Speed

15nrrn*15nrrn, 20x, 15s only



Stable Scanning

Magnetic suspension motor drive
99.85% slides scanned successfully



High Cmpatibility

High resolution 0.25 um/pixel
(20x), 0.125um / pixel(40x) WSI
scanning



Top Accessories

OLYMPUS top objective lens
CHROMA narrow band filter



High Precision

50nm positioning accuracy
Support 80x magnification



Professional Services

Customize products quickly,
Provide in-time support



Full Automatic

One-click scanning, read slide bar code
automatically, upload **classified slides**
to storage server



High Stability

Record: Scan 4600 continuously without
errors



Intelligent Scanning Mode Switch

Switch scanning parameter and mode
automatically for different slides



Automatic Image Quality Grade

Grade image quality **automatically**
before archiving



Slide Protection Programme

Push out or skip the nonstandard slides
automatically to avoid getting stuck



Big Data Efficient Management

Centralized data storage, efficient
classification management, bind to
patient information automatically
graded **storage**

KFBIO Scanner Series

KF-FL series

Ultra-fast Scanning

5 Kinds of Scanning Flux

3 Colors Independent Processing

50nm Precise Control

80x Optical Imaging



▲ KF-FL-400



▲ KF-FL-120



▲ KF-FL-040



▲ KF-FL-020



▲ KF-FL-005

Digital Pathology Slide Scanner Parameter

Model	KF-PRO-005	KF-PRO-020	KF-PRO-040	KF-PRO-120	KF-PRO-400
Capacity	5	20	40	120	400
Scanning Mode	Line Scanning				
Scanning Speed	25s (20X, 15mm x 15mm) 40s (40X, 15mm x 15mm)				
Objective Lens	Plan achromatic objective 20X, NA 0.8; 40X, NA 0.95				
Resolution	≤ 0.25 μm/pixel (20X) ≤ 0.125 μm/pixel (40X)				
Position Accuracy	50nm				
Z-stack	✓	✓	✓	✓	✓
AI Recognition	✓	✓	✓	✓	✓
Fluorescence Upgrade	✓	✓	✓	✓	✓
Image Format	KFB/TIFF/SVS				
Movement Mechanism	Magnetic suspension drive, no noise, no abrasion				

Fluorescence Model Parameter

Acceptable Slides	Digital 5 Slides Scanner: 1*3inch, 2*3inch, 6*8inch, standard bright-field and fluorescence slides; Other models: 1*3inch, standard bright-field and fluorescence slides			
Fluorescence Channel	6 channels to choose, CHROMA filter			
	Channel Name	EX	BS	EM
	KF-DAPI	350/50	400	460/50
	KF-GREEN	495/25	515	537/29
	KF-ORANGE	546/10	556	572/23
	KF-RED	580/25	600	625/30
	KF-CY5	630/20	647	667/30
Fluorescence Scanning Speed	3 channels exposure time: 50ms; 10mm*10mm scanning time: 7min			
	6 channels exposure time: 50ms; 10mm*10mm scanning time: 14min			
Fluorescence Area	Select an area manually, recognize marked area automatically			
Fluorescence Camera Parameter	Active cooling 1.2 inch target surface sCMOS fluorescence camera.			
Z-Stack	Support Z-stack and image fusion function			

Whole-slide Imaging Analysis System (for scientific research)

Acceptable Slides	H&E, IHC, ISH, FISH, IF slides, etc; Oncology, neurosciences, metabology, transplantation, toxicological pathology;
Analysis Speed	1.5cm*1.5cm WSI analysis, ≤1min
Module	Choose module according to needs

KFBIO Scanner Series

KF-PRX series

KF-PRX-I20



KF-PRX-480



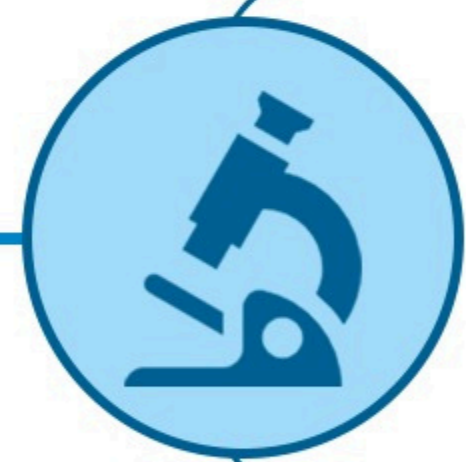
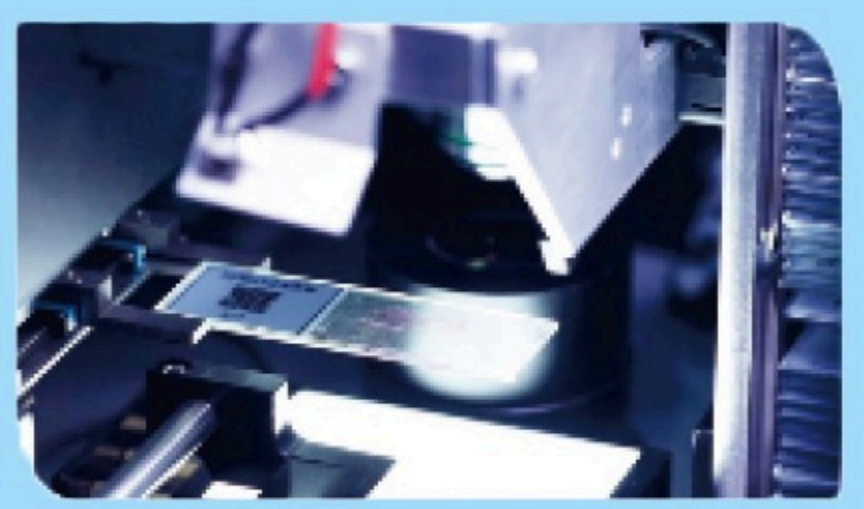
KF-PRX-640



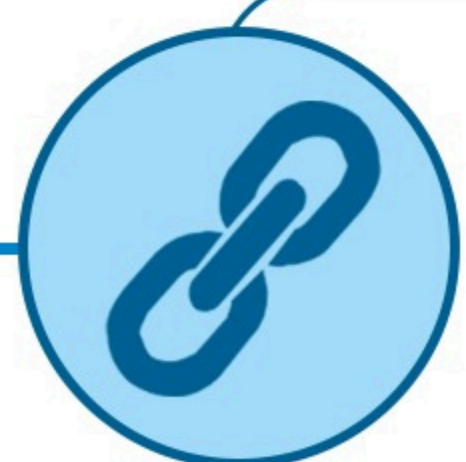
KF-PRX-I200



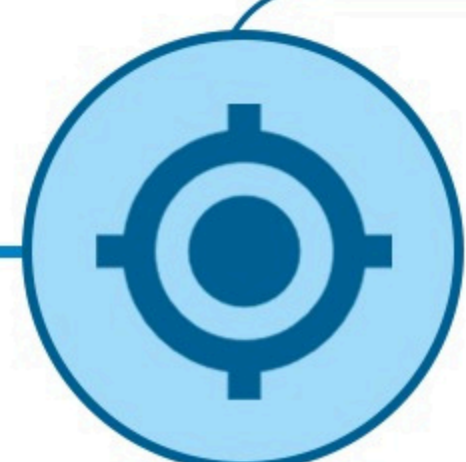
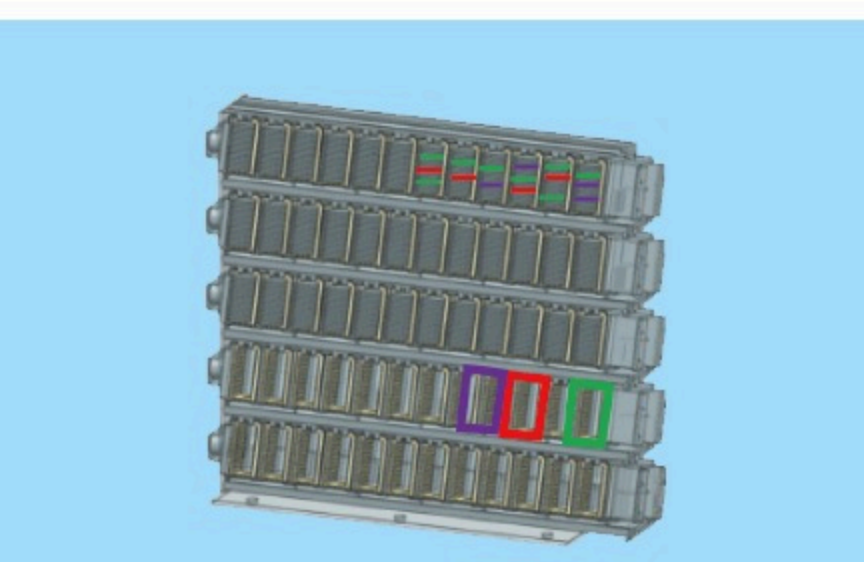
Features



Adhere to the optical path design of classic microscopic imaging to restore the experience of reading slides under the microscope



Staining, scanning, and slicing ensure the seamless connection of the business workflow.



It supports second-level integrated prescanning and enables quick perception of the physical position of glass slides.

Full Process Tracking And Quality Control Solutions



KF-GSC-100

-01- Specimen Imaging System

- High-definition image quality
- Segment automatic recording
- Synchronized video and photo recording
- Support for voice input

-02- Paraffin Rotary Microtome

- Rapid sample location
- High slicing precision
- Effortless operation experience



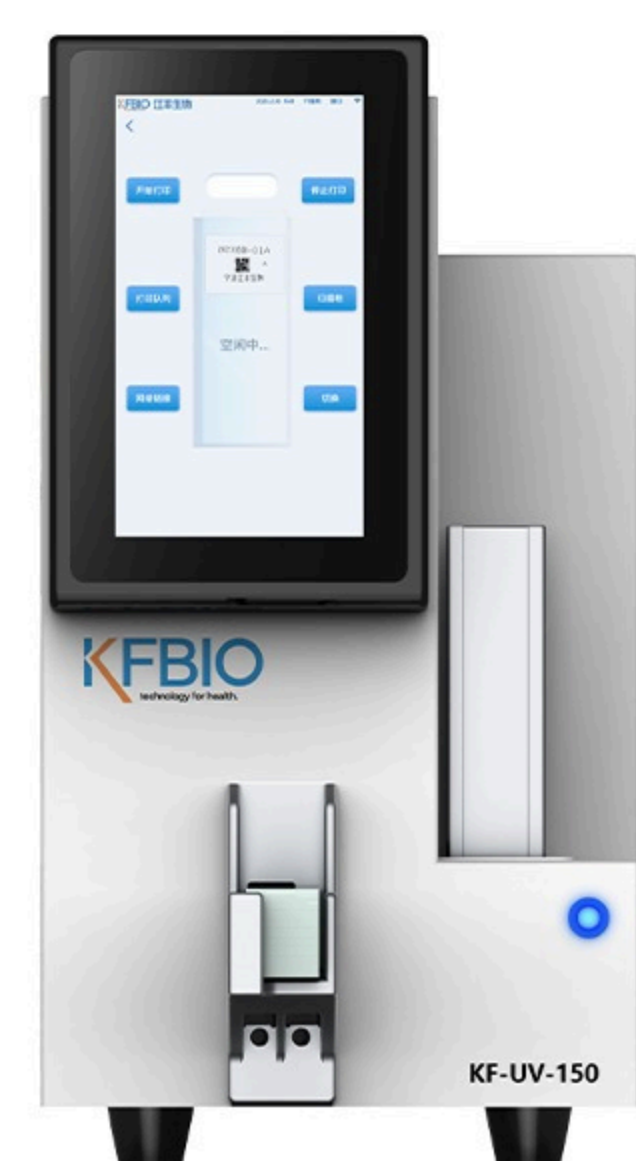
KF-SLP-200



KF-SLP-300

-03- Printer Series

- High Speed
- High Resuloution
- Compact Size
- High Stablity



KF-UV-150



KF-UE-006

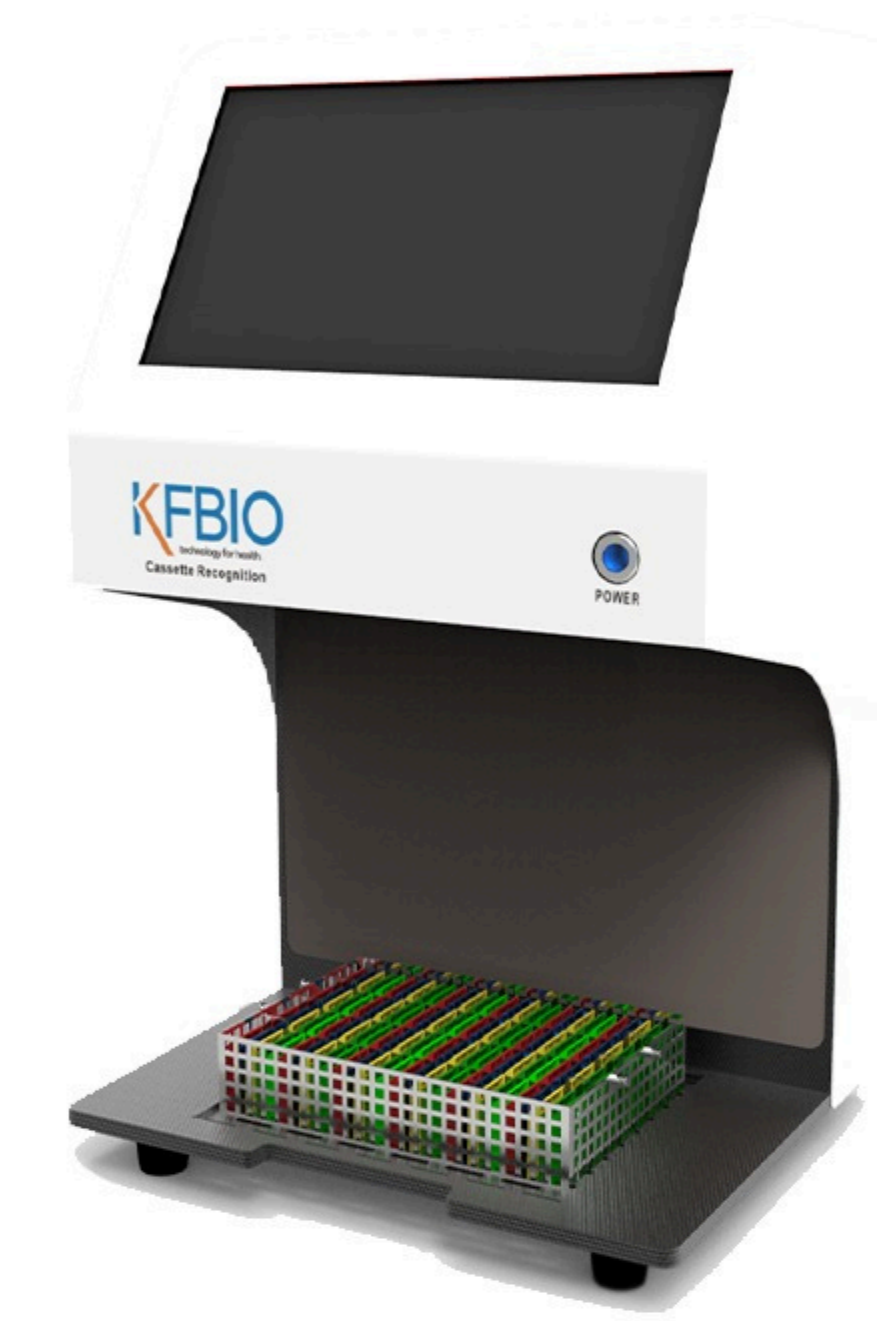


KF-UE-001

Interconnection Rating

EMR Rating

Innovation In Information Techology Application



KF-ARC-300



KF-ARS-300

-04- Recognition System

- High-efficiency Identification
- Independent Software
- Convenient Design
- Strong Compatibility
- Intelligent Verification

-05- Stainer and coverslipper

- Fully automatic
- Easy to operate,
- High speed



KF-RF-I



KF-RF-II



KF-RF-III



KF-DRF-A



KF-RF-V

Liquid-based cytology Integrated solution

Cell Preservation Solution

- | Effective fixation for sample cells
- | Formaldehyde-free, environmentally friendly and safe
- | Patented red blood cell lysis technology, 100% clean background, | **fully preserves cells, long storage time, shelf life of 2 years**
- | **Supports HPV, P16, and other tests**

Cleaning Solution

- | **Powerful removal** of residual cells and reagents
- | Maintains cleanliness of the reaction system

Papanicolaou Stain Solution

- | **AI-specific** staining solution
- | Patented formula, **high staining saturation**, good sharpness
- | High transparency, distinct spacing between cells and cell nuclei, **clear and distinct cell clusters**
- | Effectively distinguishes between keratinized and non-keratinized cells
- | Perfectly compatible with AI analysis and doctor's visual needs

Sample Density Separation Solution

- | For the separation of different components in samples
- | **Maintains cell morphology**, avoiding cell shrinkage caused by saline components
- | Utilizes organic macromolecules to increase the density of sample suspension, reduce sedimentation speed, effectively remove blood cells and mucus, and **retain cells with diagnostic significance**

Buffer Solution

- | For providing or maintaining reaction environment
- | **Efficiently maintain PH values**

Hematoxylin Staining Solution

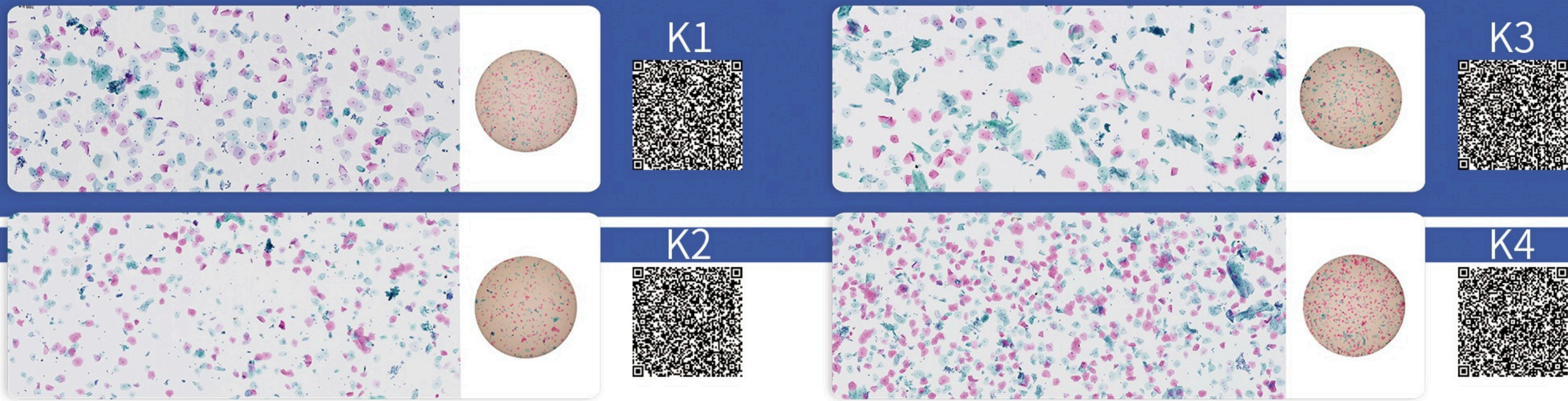
- | For nuclear staining
- | Long preservation time
- | **Strong and long-lasting nuclear staining**



Model	KF-CT-3000Y	KF-CT-4000Y	KF-CT-024E	KF-CT-048E	KF-PD-1000L
Main Advantages	Suitable for small and medium medical institutionsOpen operation space, simple operation	Meet most users" requirements- Closed, high staining efficiencyIndependent stain reagent directinjection system, improve production efficiency	Following the traditional sedimentation slide-making principle, it allows one-click automatic operation, suitable for lab slide-making and cervical cancer cell screening		The circulating motion assembly line combines patient info input, full-auto slide-making, staining, dehydration, clearing, and coverslipping, reducing labor costs.
Sample Quantity	24	48	24	48	50
Speed	24slides/45min	48slides/45min	24slides/≤55min	48slides/≤110min	90slide/60min
Production Technology	Reaction chamber natural sedimentation technology	Reaction chamber natural sedimentation technology	Reaction chamber natural sedimentation technology		Reaction chamber natural sedimentation technology
Sample Load	One sample load	Four sample load	Four sample load		Four sample load
Stain Method	Four channels liquid separation	Independent stain reagent direct injection technology	Independent stain reagent direct injection technology		Independent stain reagent direct injection technology
Waste Liquor Disposal	Four channel confluence negative pressure suction	Independent waste liquor extraction and control technique	Independent waste liquor extraction and control technique		Independent waste liquor extraction and control technique
Exhaust Gas Filter	—	Closed passive exhaust gas filtration	—		Independent vacuum pump extraction technology
Monitor Reagent and Consumable	—	—	√		—
Sample Pre-process	—	—	—		—
Process Gynecological and Non-gynecological samples	√	√	√		√

STAINING EFFECT

- >EQUAL CELL DISTRIBUTION
>SOFT AND BEAUTIFUL COLOR
- >CLEAR CYTOPLASM
>EASY DIAGNOSIS



K1-K4 MEET VISUAL PREFERENCES OF DIFFERENT PATHOLOGISTS

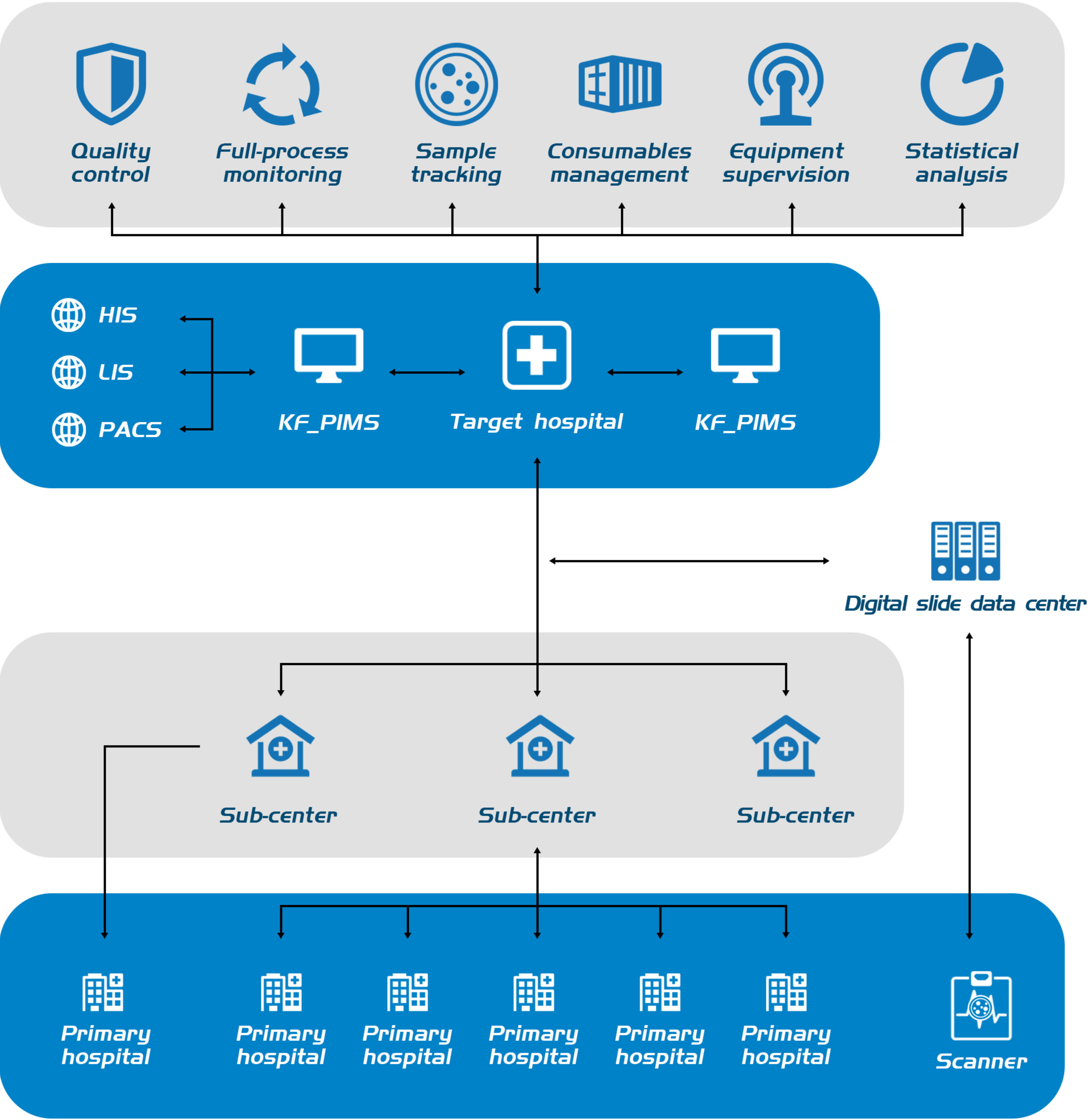
SCAN QR CODE TO VIEW THE DIGITAL SLIDES.
WHAT YOU SEE IS WHAT YOU GET.



Pathology Information Management System

Product Architecture

Seamlessly connect with various physical devices and systems



KF-PIMS Features

Highly customizable

Deployment scale

From local deployment to cross-regional large medical consortium level

Deployment mode

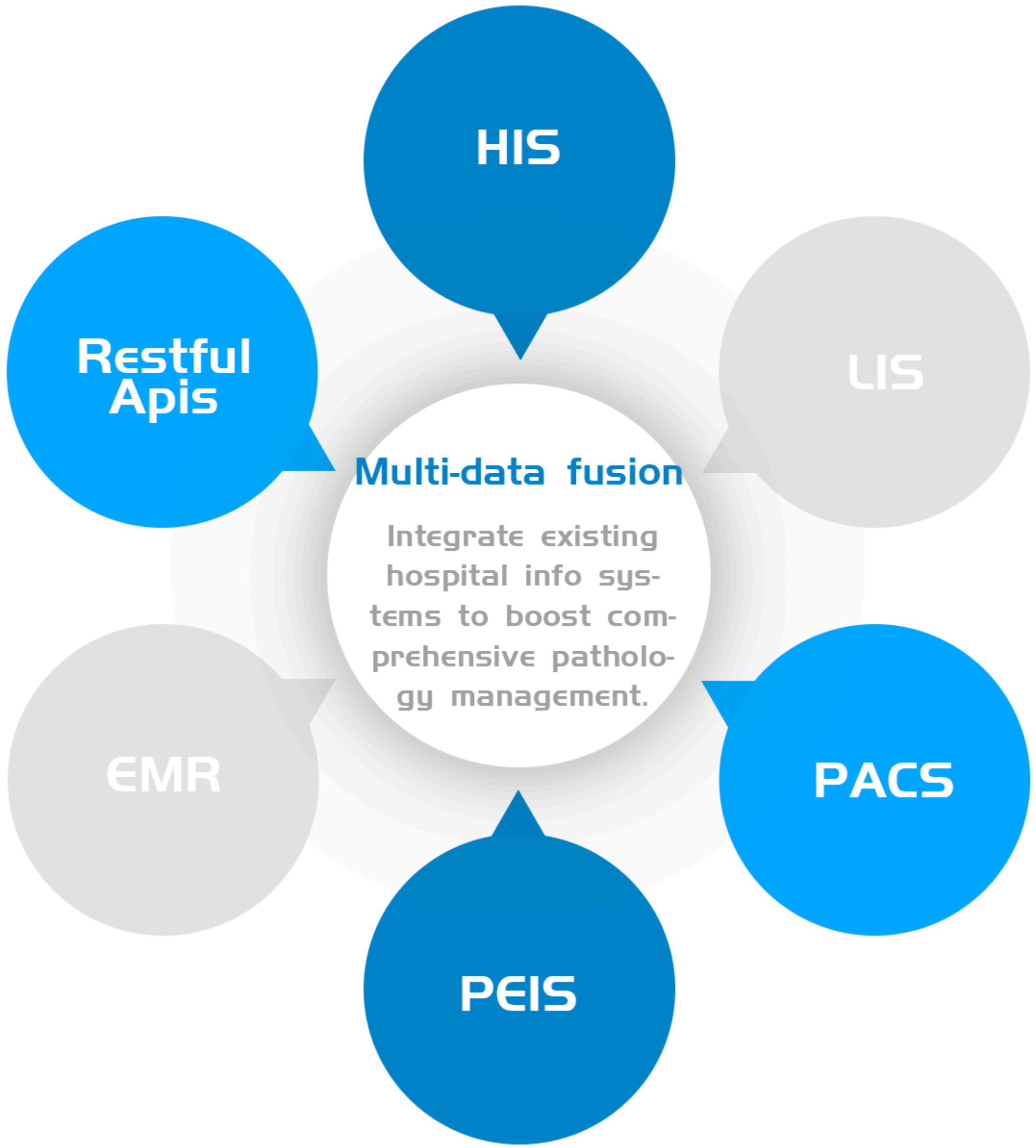
The KFPIMS can be deployed together with the KFBIO remote consultation system (KF-DIAG) and the laboratory management system, with seamless docking between the systems.

Platform modules

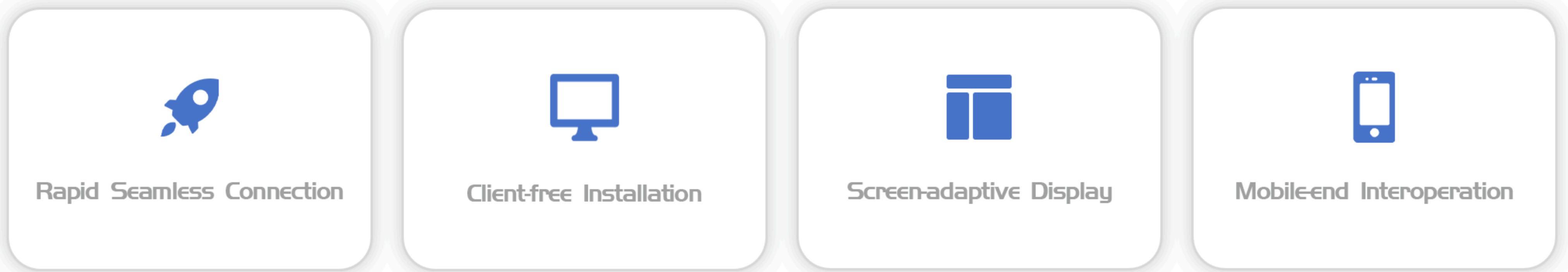
Dictionary module, menu module, permission module, etc. can all be customized according to customer needs to fit users' usage habits.

Platform functions

The functions of the back-end data analysis and processing platform can be flexibly customized according to customers' business requirements and budgets.



Unique architecture



KFBIO Digital Slide Management System

The Digital Slide Management Platform is an advanced healthcare IT solution that allows medical professionals, such as pathologists and researchers, to manage and analyze tissue slides digitally, providing more efficient and precise diagnostic and research methods for health-care, education, clinical pathology, and scientific studies.



B/S Arch

- Quick upgrade
- Adapt to all kinds of screens
- Convenient operation and maintenance
- Scalability



High Perf. & Availability

- 99.99% availability
- Database capacity: Millions
- 3s data feedback



Integration

- OPEN for connect with other Information systems
- Scanner Integration - multiple File Format Support



Permission control

- Multi-level fine-grained access control based on users and roles



120 users can use DSMS simultaneously with its outstanding performance supported.

The time for overall data retrieval and feedback shall not exceed **3s**



Dock and conduct data transmission with

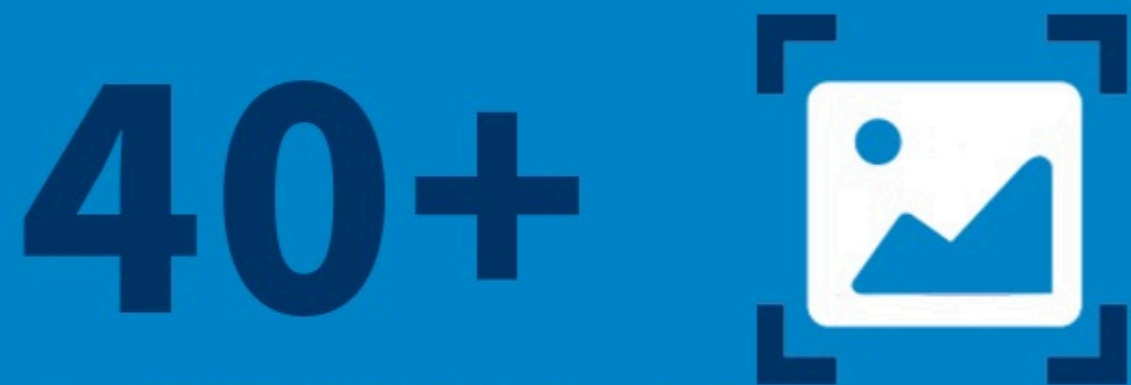


scanners of different brands.

OPEN different scanning formats and different systems.



Connect with



scanners for use by the clinical system in a single area.

Cooperate to establish **26** digital slide databases for specific diseases.

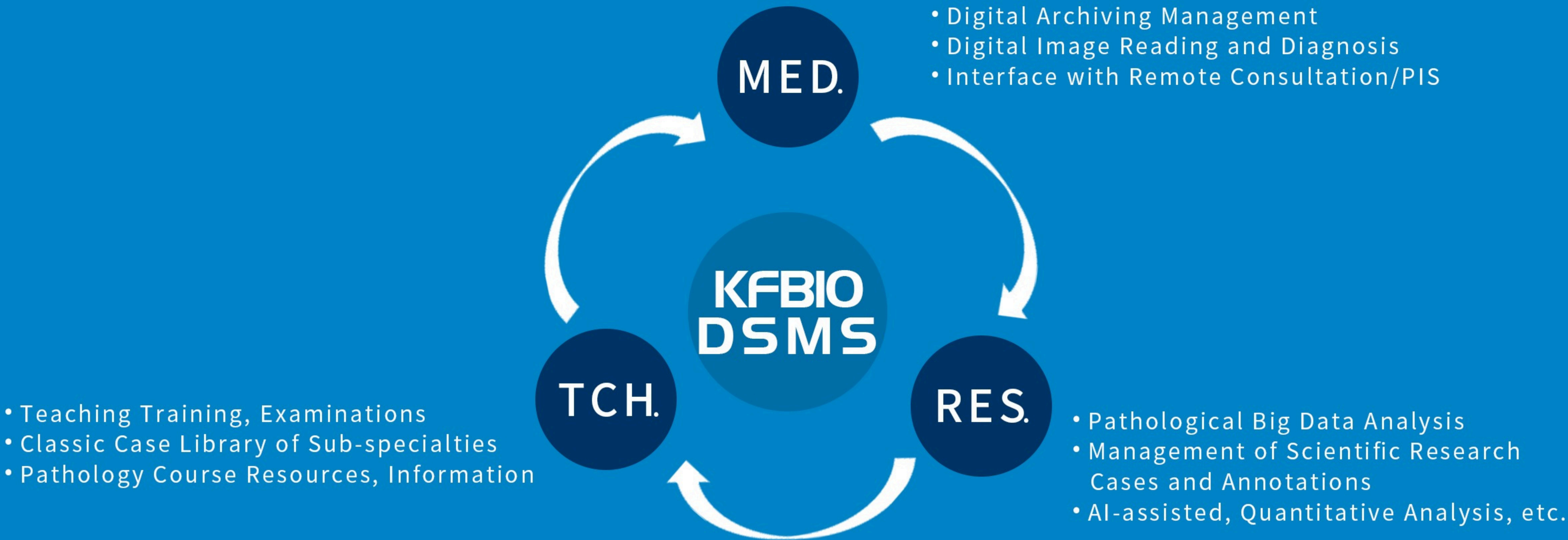


3000+ There are global digital and intelligent pathology cooperation users.

The monthly management volume of newly added digital slide data reaches **2 MILLION** pieces.



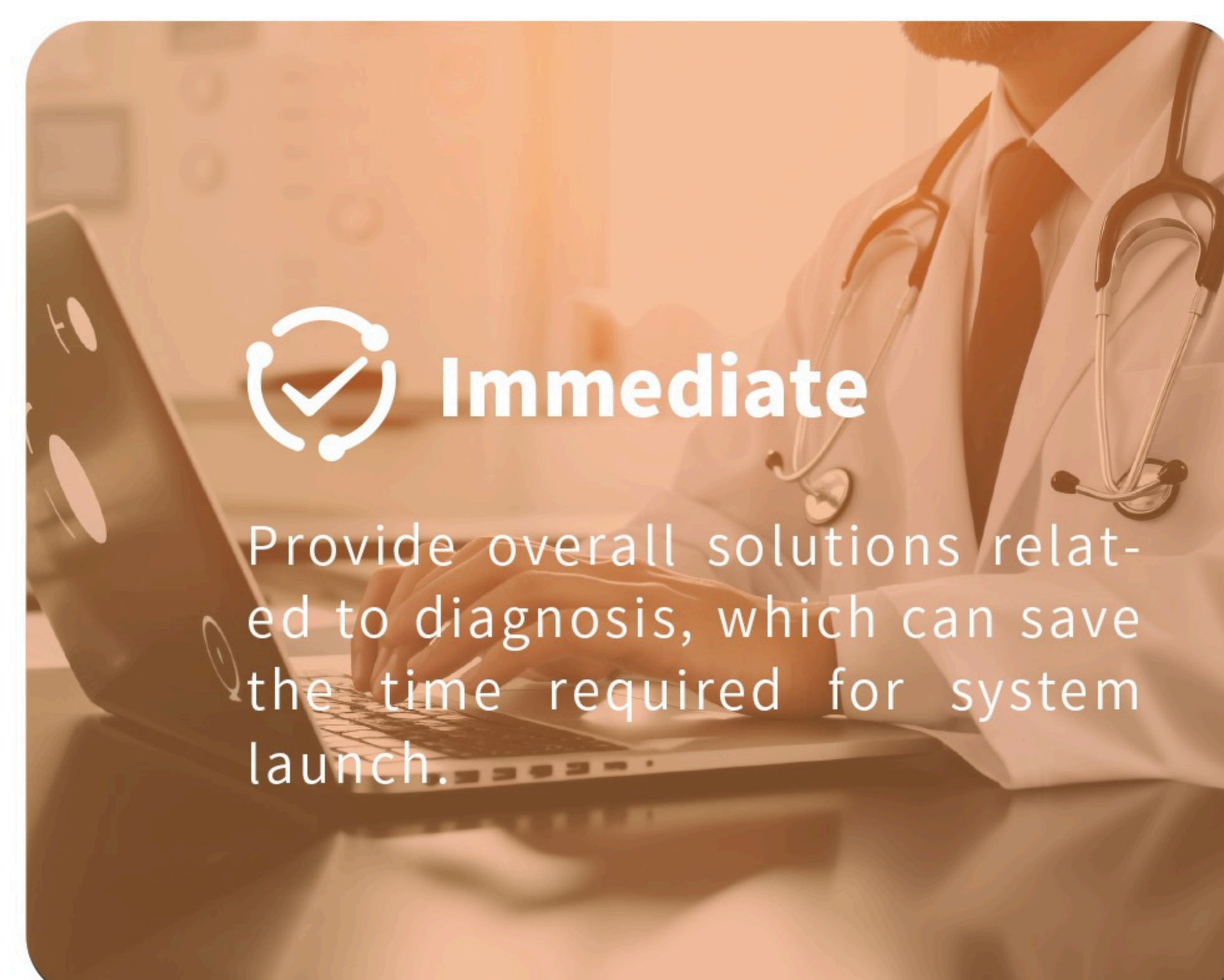
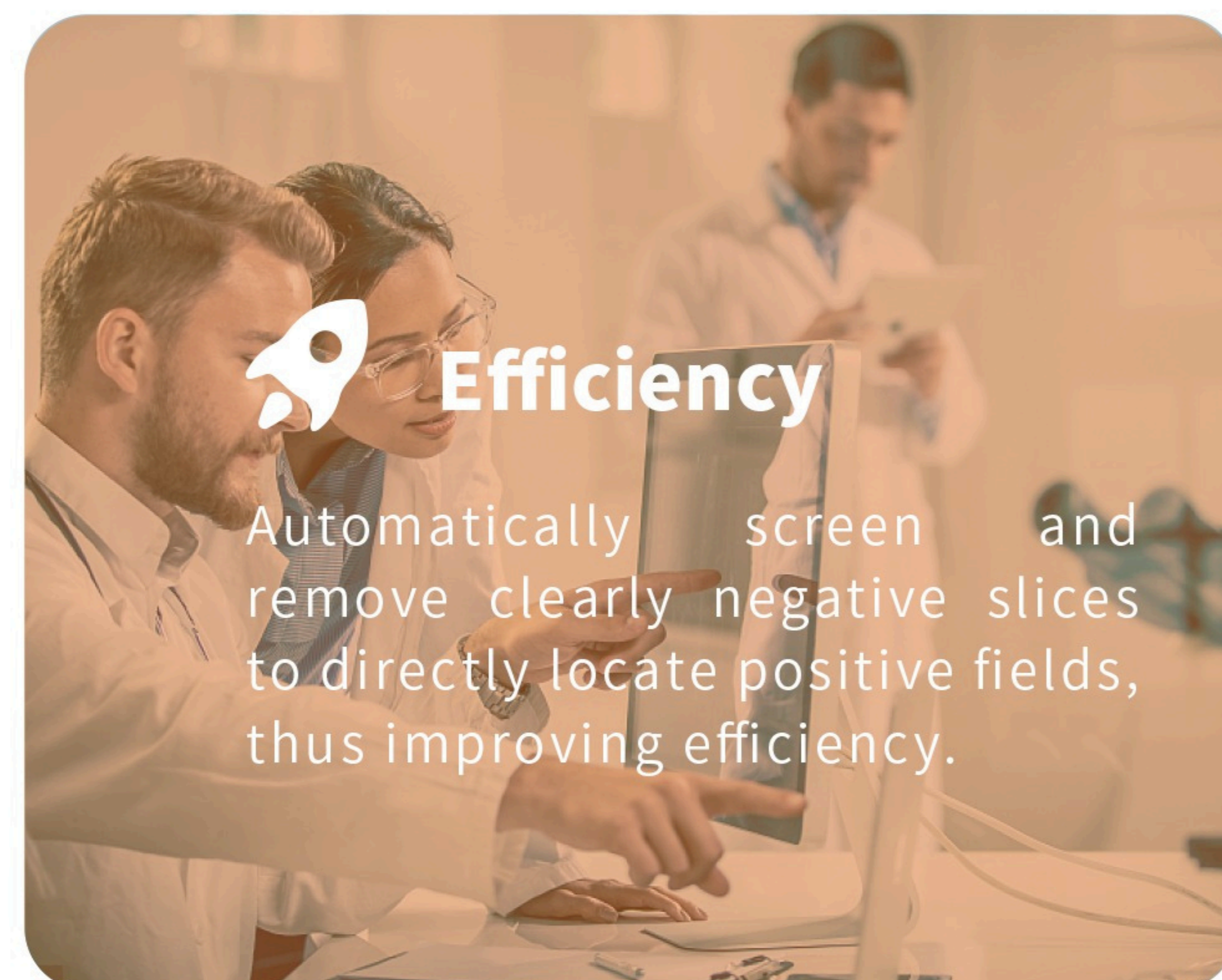
Application Scenarios



Artificial Intelligence Assisted Diagnosis Series Solutions

01 Liquid Based Cytology AI for Cervical Cancer

- One of the earliest diagnostic platforms with Class II certificate for pathological AI.
- Trained on high - quality sample library.
- Professional algorithm teams ensure system reliability.



Liquid Based Cytology AI for Thyroid Cancer 02

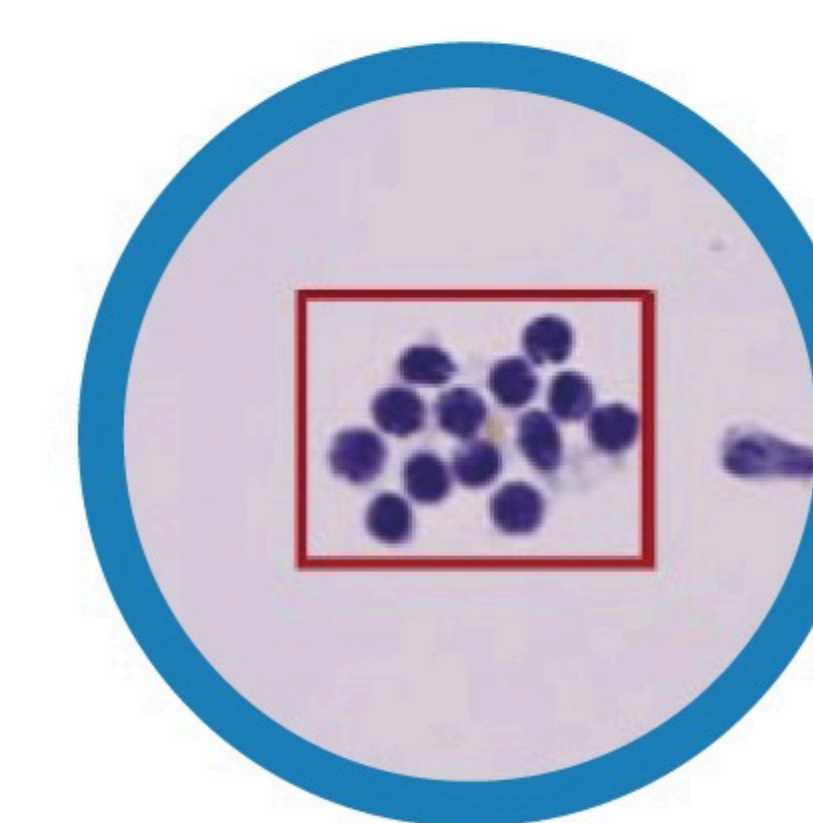
Efficient cell location, intelligent sorting, and support for electronic reports.

01 Cytology

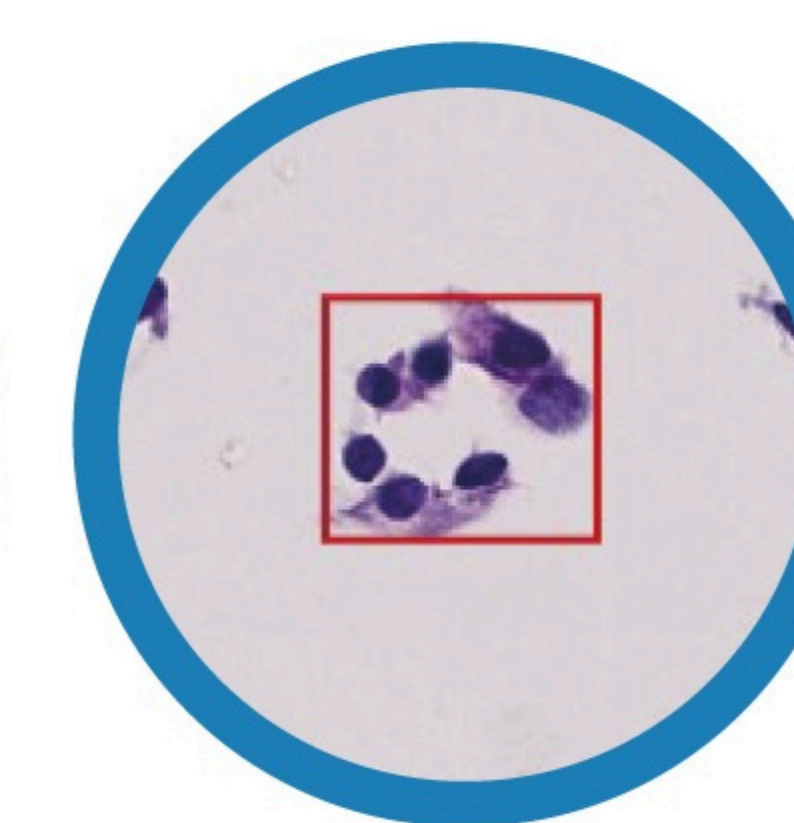
- **Cellular localization**
Locate abnormal follicular cells and their lengths and widths.
- **Intelligent Sorting**
Sort intelligently according to cellular abnormalities and generate thumbnails for doctors to quickly review.
- **Electronic Report**
An electronic report can be generated with one click, including screenshots of digital pathological images.



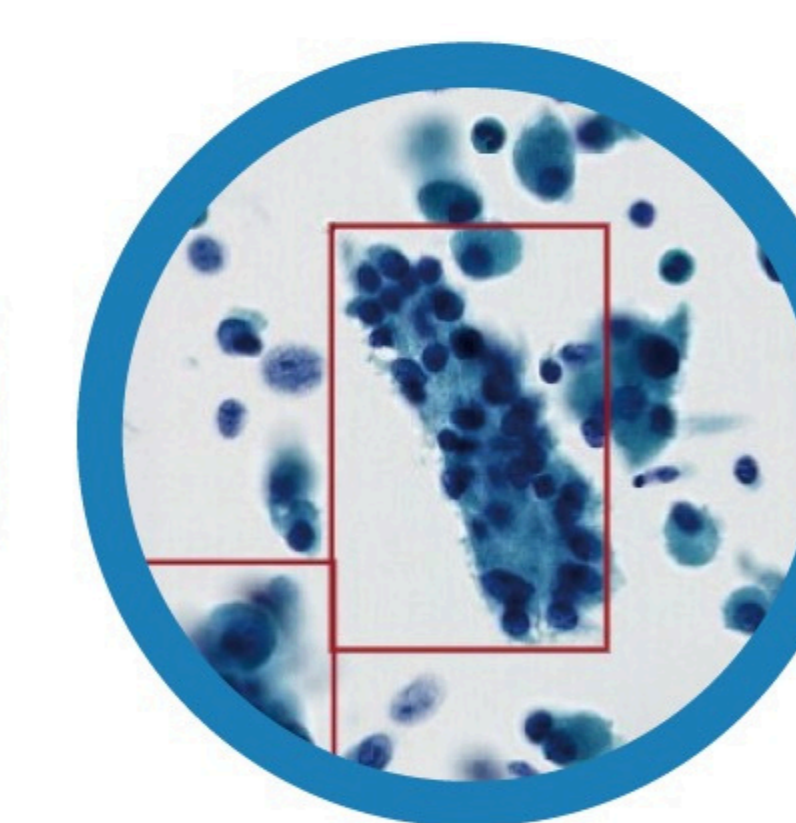
02 Five types of identification and classification



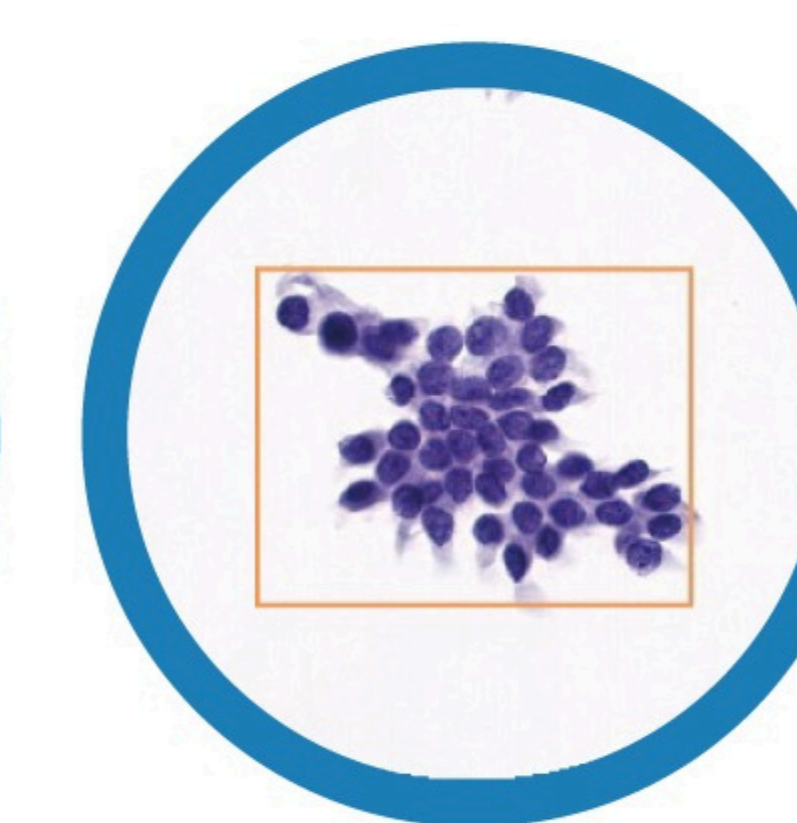
BFN
Benign Follicular Nodule



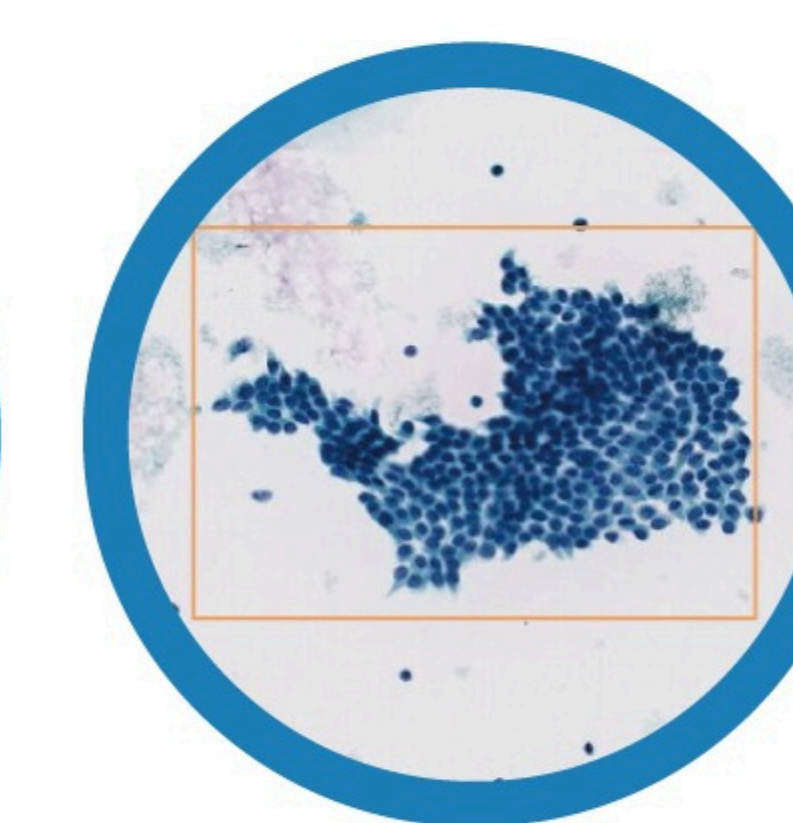
AUS
atypical or follicular lesion of undetermined significance



SFN
Suspicious Follicular Neoplasm



SFM
Suspicious Malignant Tumor



PTC
Papillary Thyroid Carcinoma



500+ positive slices
30,000+ cell annotations.



All slices are from biopsies with matched control slices.



The data comes from multiple sources



A 2:1 ratio of negative to positive slices.

100%

100% whole-slide recognition

95%

Over 95% sensitivity

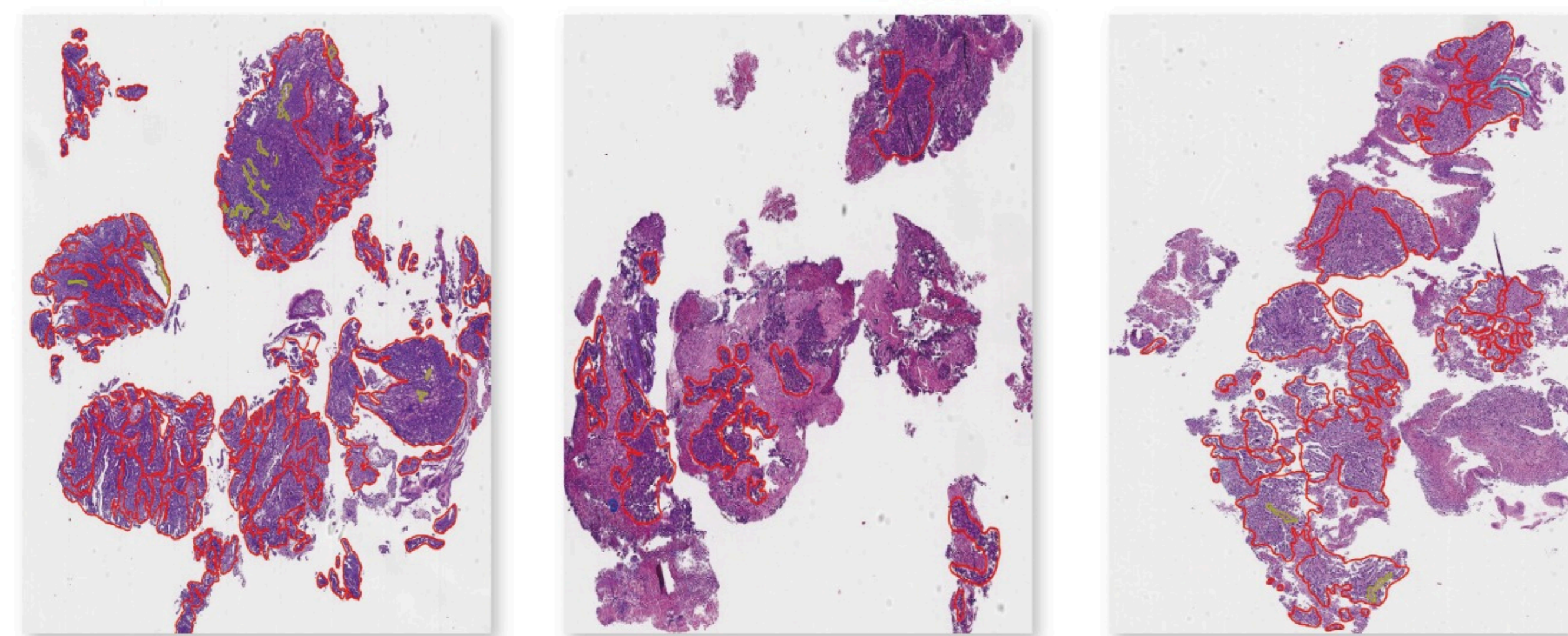
50%

50% average specificity

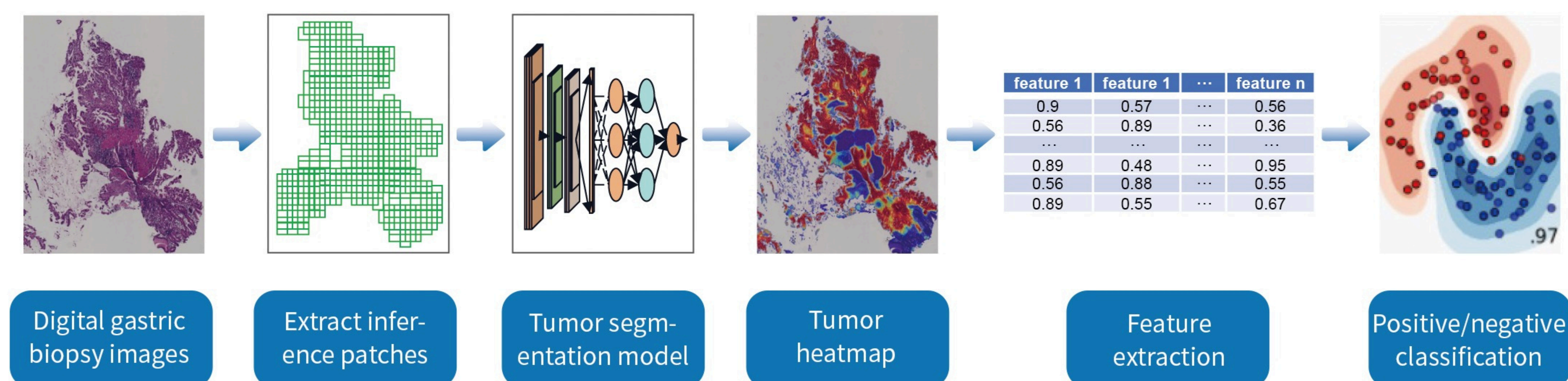
03 Histology AI for Stomach Biopsy

01 Five types of identification and classification

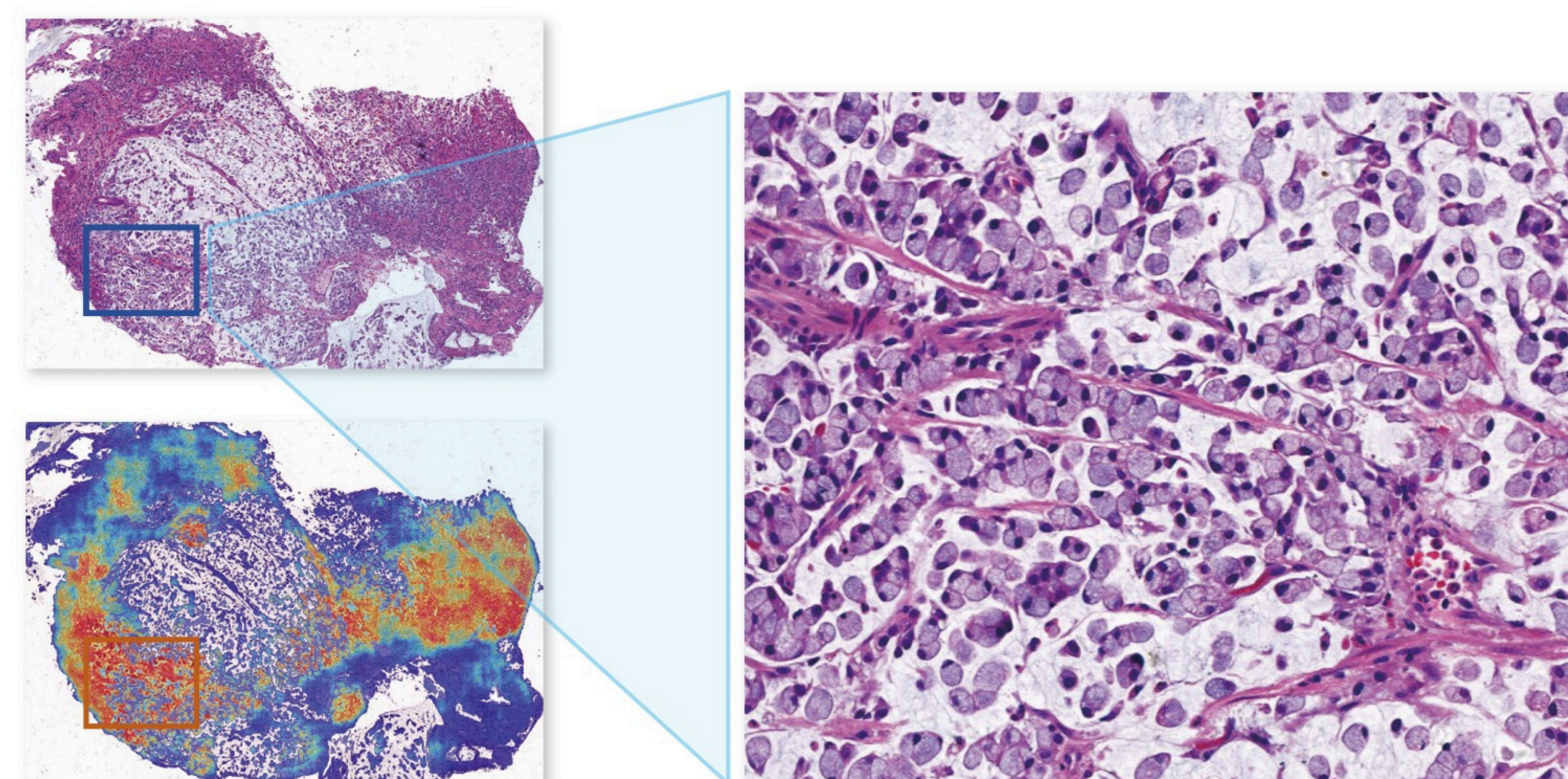
- Normal tissue
- Low-grade intraepithelial neoplasia
- High-grade intraepithelial neoplasia
- Adenocarcinoma
- Signet ring cell carcinoma



02 WSI inferential prediction of tumor probability



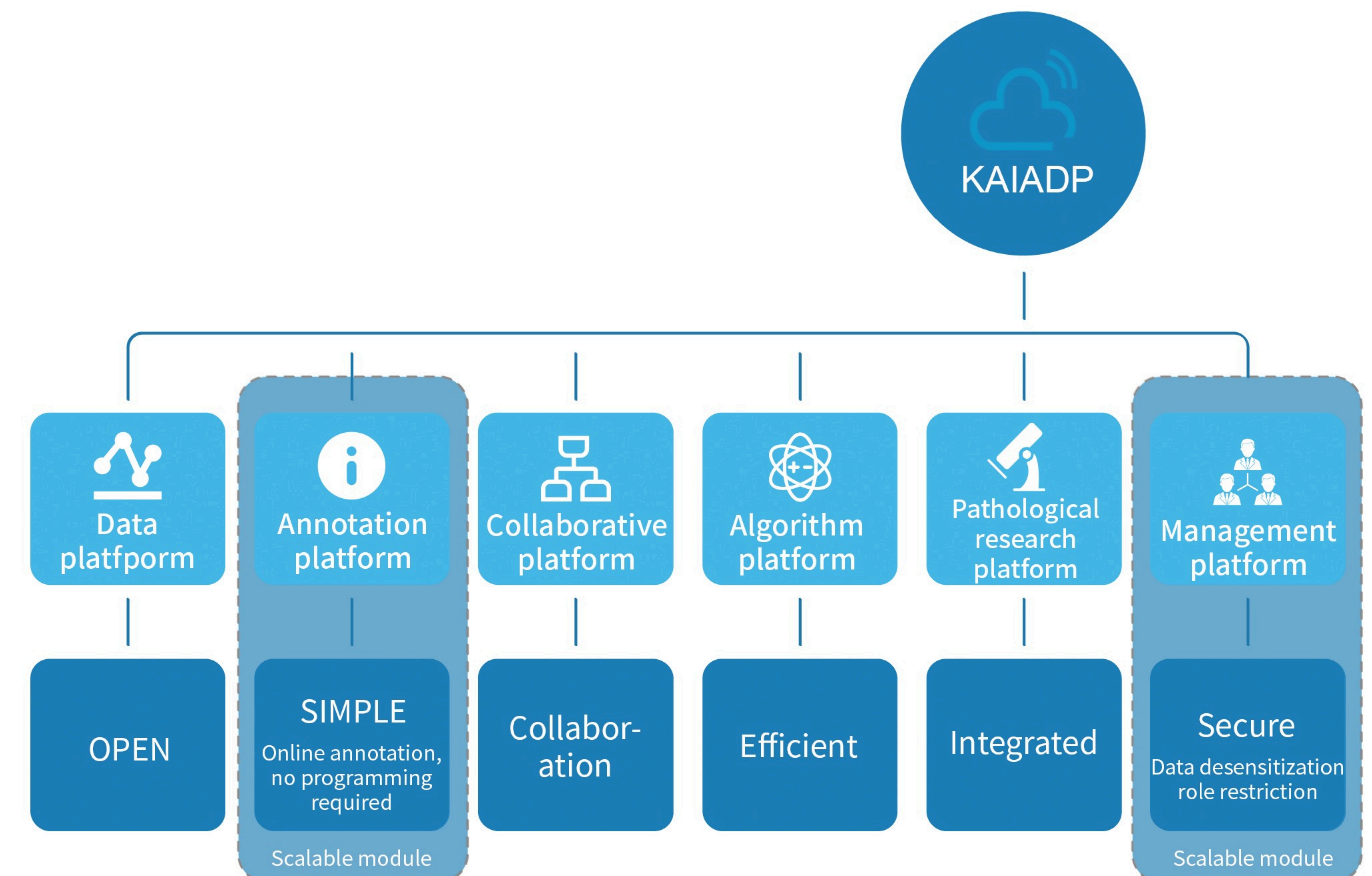
03 Diagnostic Management System - Tumor Region Localization



Prompt for signet ring cell carcinoma

KF-KAIADP Big Data Artificial Intelligence-Assisted Diagnostic Platform 04

Achieve intelligent quality - control evaluation of pathological H&E panoramic digital sections, automatically locate quality - control problem areas, identify whether the quality control of sections is qualified, greatly reduce the working intensity of pathologists in manual quality control, and thus improve work efficiency.



Annotation Management

- Provide a standardized annotation tool library
- Adapt to different annotation scenarios
- Support the export of annotation data
- Support semi-automated annotation
- Annotation task assignment and multi-level annotation management