



Expect The Unexpected



**Dia.Patho****Dx**

## **Pathology Information Management System**

Process Standardization · Data Structuring · Inventory Transparency



Expect The Unexpected

**Dia.PathoDx**

Dia.PathoDx Pathology Information System is a four-pronged integrated pathology information system through the "Standardised Process Management System", "Pathology Department Supply Chain Management System", "ISO15189 Medical Laboratory Pathology Quality Control and Data Management System (Electronic Experiment Notebook, in short ELN)" and the "Pathology Department Specialist Standardisation Training and Dynamic Staff Qualification Management Module". It will complete the digital innovation of pathology diagnostic services based on process standardization, supply chain leaning and data structuring, thus enhancing the further improvement of pathology diagnostic quality.

Daochang Medicine is a provider of high-tech medical services focused on digital health. Daochang Medical has specialized in digital health care for several years and has excellent product development capabilities. Backed by powerful knowledge experience, the company has studied, designed and manufactured products such as pathology information systems and healthcare supply chain management systems.

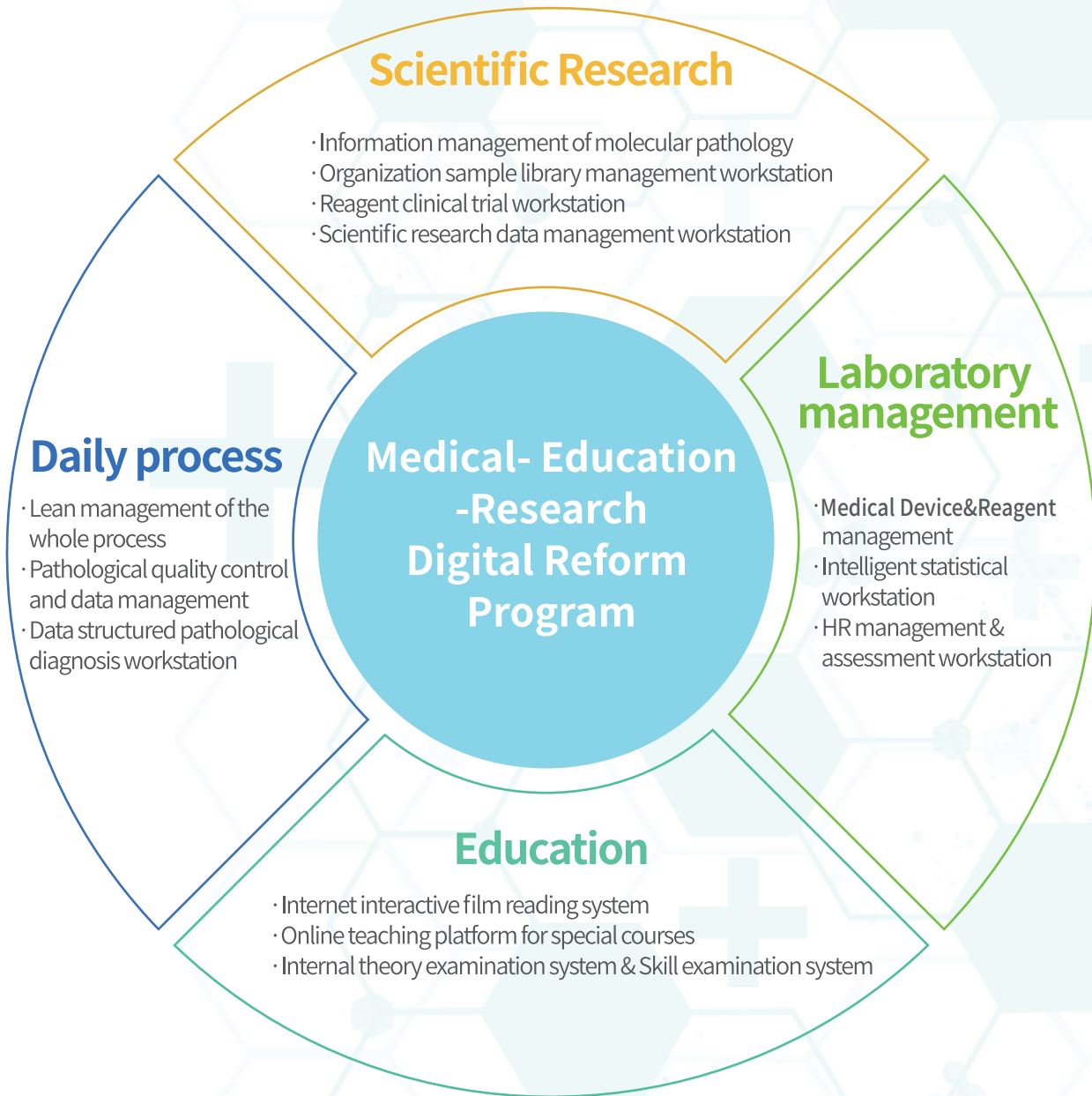
We maintain the mission to continuously create value for users in the professional field of medical services and to achieve the mission of leading professional services for unlimited value. It contributes professionally to the reform of health care facilities and the progress of the national health care reform.

*Glory Hill Canada inc. is the representative office of Shanghai Daochang Medical Science & Technology Co., Ltd. in North America.*

Shanghai Daochang Medical Science & Technology Co., Ltd.



Expect The Unexpected

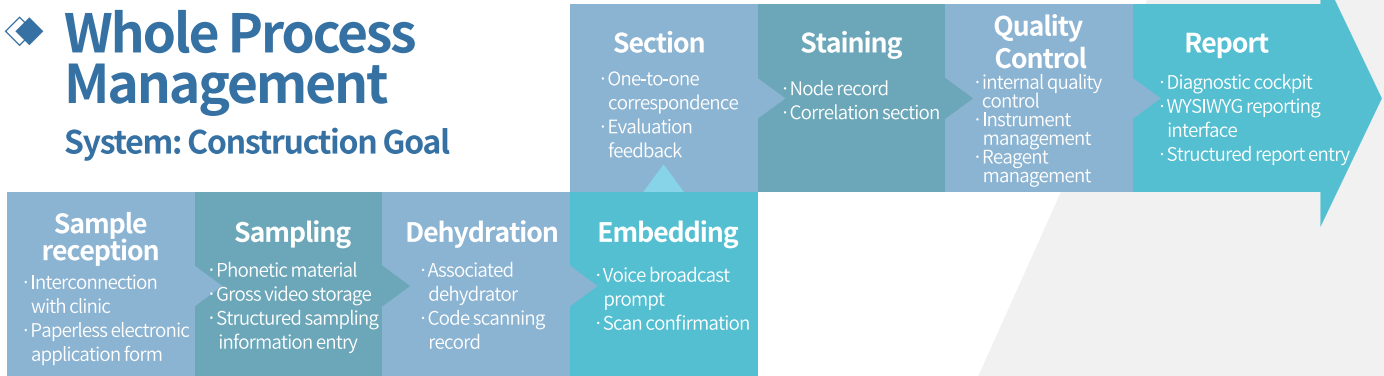






## ◆ Whole Process Management

System: Construction Goal



## ◆ Basic construction of routine pathology

01

To realize the whole process scan code management

02

Build standardized quality control sheet in the system

03

Structured Sampling & Report

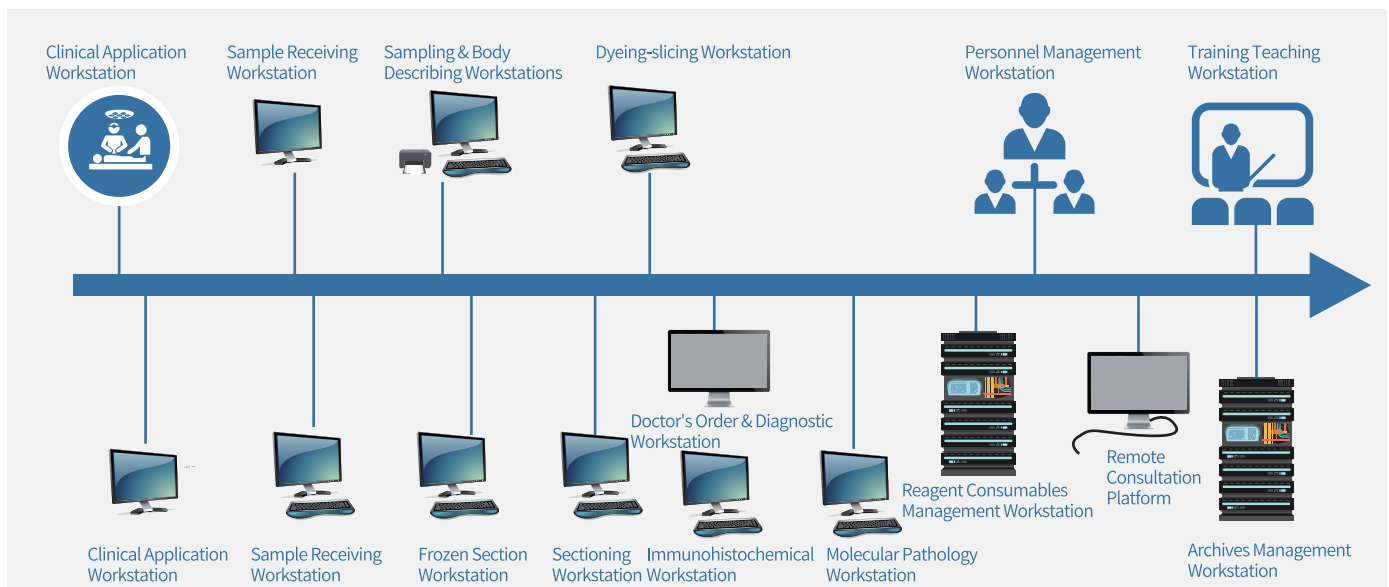
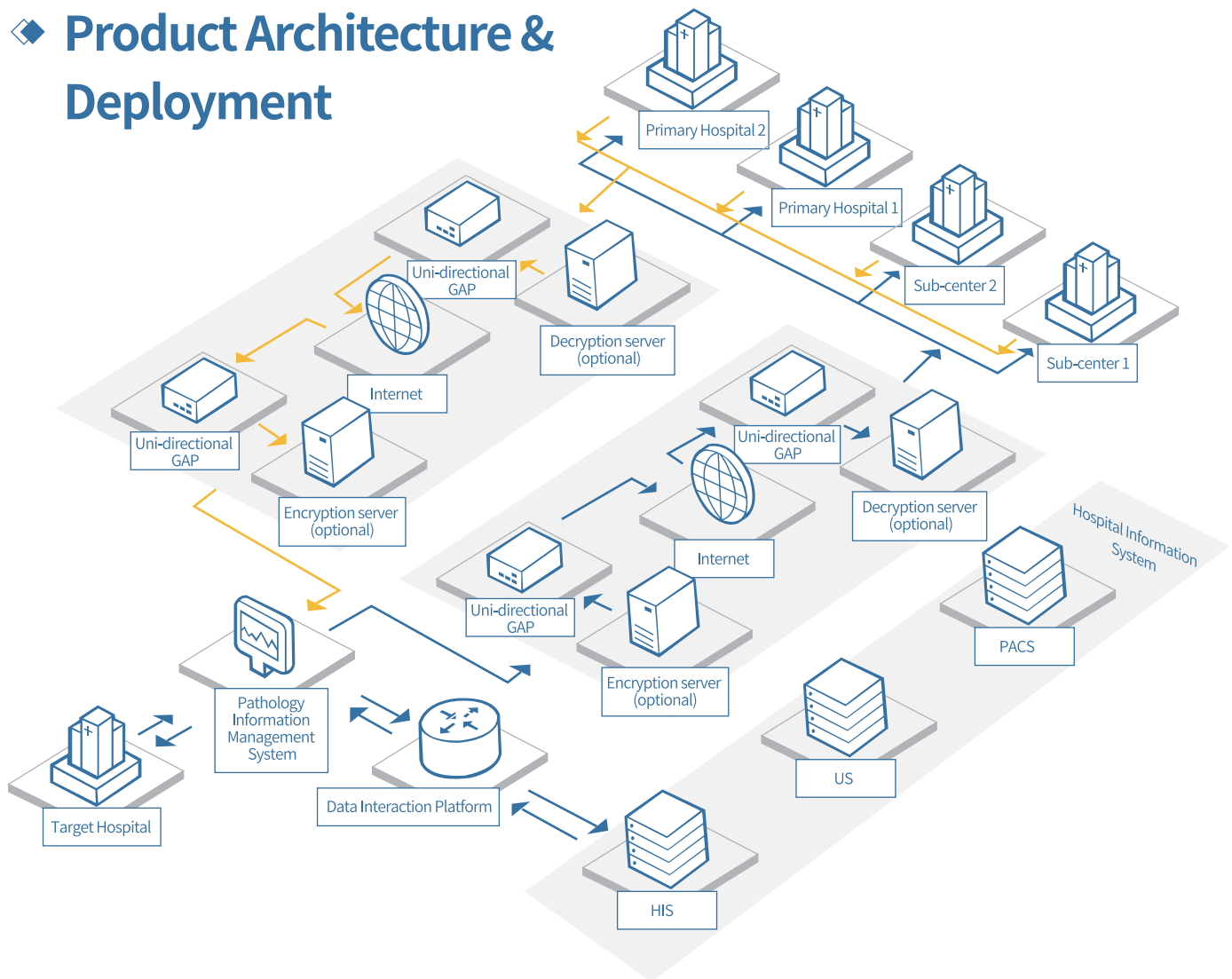
## ◆ Whole process management informatization

- Easy to operate and save time
- Data can be traced back and work can be quantified
- Data-based empowers pathological development





## ◆ Product Architecture & Deployment





## ◆ Physician's Order To Report Workstation

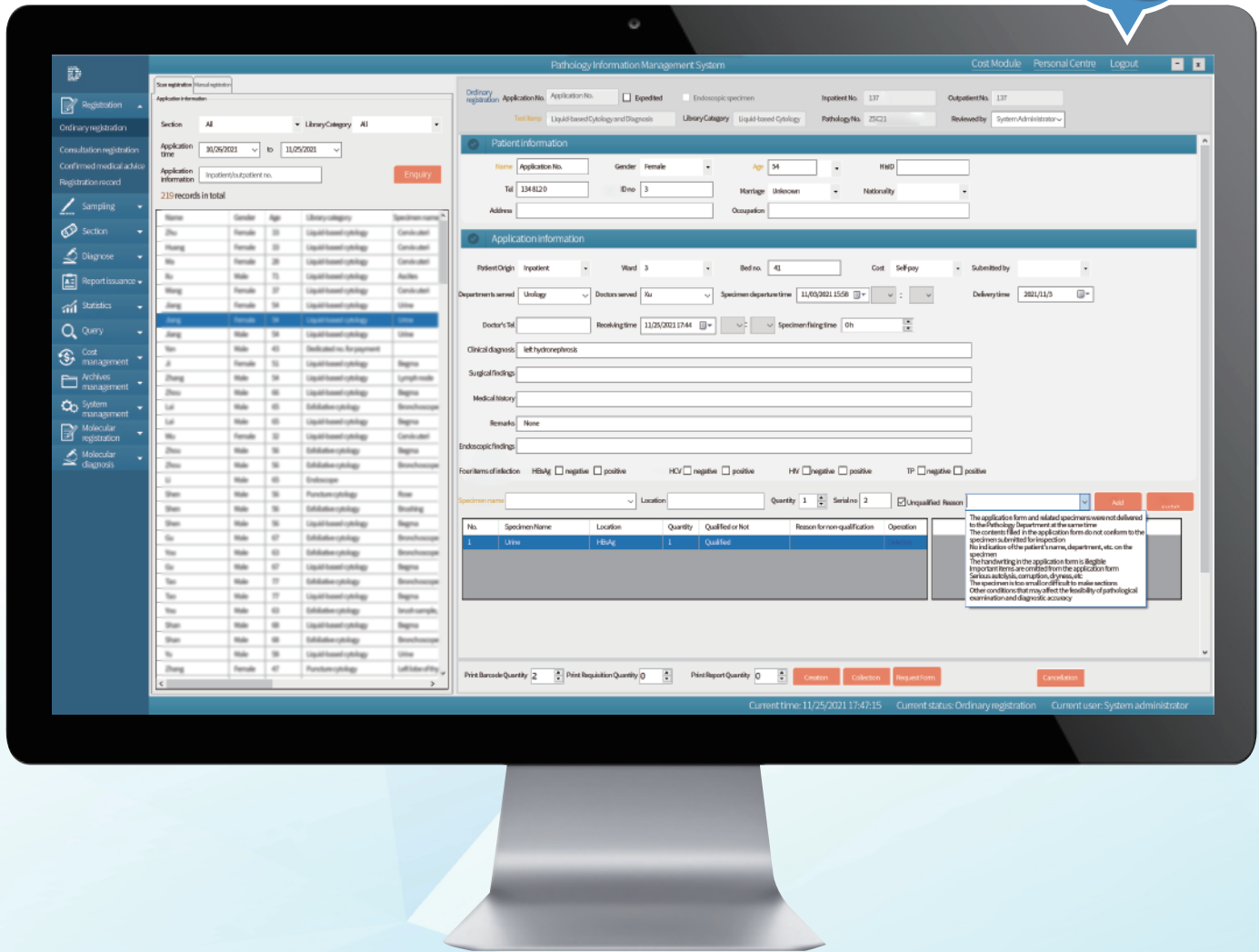
- 01 Holographic diagnostic cockpit.
- 02 It takes over from ICCR's data-structured pathology report editing.
- 03 Interconnect with HIS, provide dynamic diagnosis interface, and support viewing other examination results of the same patient.
- 04 Record traces of modification of pathological reports for traceability investigation.
- 05 Multiple orders can be placed, and the payment amount is automatically calculated, and the order is displayed on the corresponding workstation after a successful deduction.
- 06 Conflict monitoring prompt of pathological diagnosis results and pop-up prompt of pathological results keywords.

Physician's Order To Report Workstation >>>



# Registration Workstation

Registration Workstation >>>



- 01 Support manual entry and code scanning (bar code or QR code) to retrieve patient-related information in HIS system.
- 02 Record the reasons for rejection of unqualified specimens and generate statistical reports.
- 03 Record the details of the specimen for inspection, including specimen name, in vitro time, fixed time and receiving time.
- 04 Support paper application forms to be photographed to generate electronic files.
- 05 The system automatically carries out "search of the same name" and automatically prompts "previous examinations" to accurately lock the patient's historical examination.





## ◆ Sampling & Describing Workstation

01

Sampling monitoring: Sampling video sectioning is linked to case storage and supports audio recording and voice recognition; supports body shots with markings and measurements.

02

Automatically load case-related information, provide templates visible to the naked eye, and support direct right-click addition or modification on the current page.

03

Mark specimens taken from small tissues, skin, mucosal biopsies, etc. and alert the embedding and sectioning technician to this.

04

The system automatically prints the embedding box according to the material record, so as to eliminate waste and reduce heavy and supplementary operation.

05

The system intelligently provides a one-to-one description of what the current specimen looks like to the naked eye after the retrieving physician scans the specimen QR code to obtain the current retrieved specimen.

The screenshot displays the Pathology Information Management System interface. The main window shows a specimen record for a 64-year-old male patient (Li M) with a gastric antrum specimen. The interface includes a left-hand navigation menu with a tree view of anatomical systems and specimen types. A central panel displays the specimen details, including gross findings and a list of material blocks. A dialog box is open, showing a template selection screen with a list of templates and a preview of the selected template's content. The preview shows a detailed description of a specimen, including its size, color, and location.

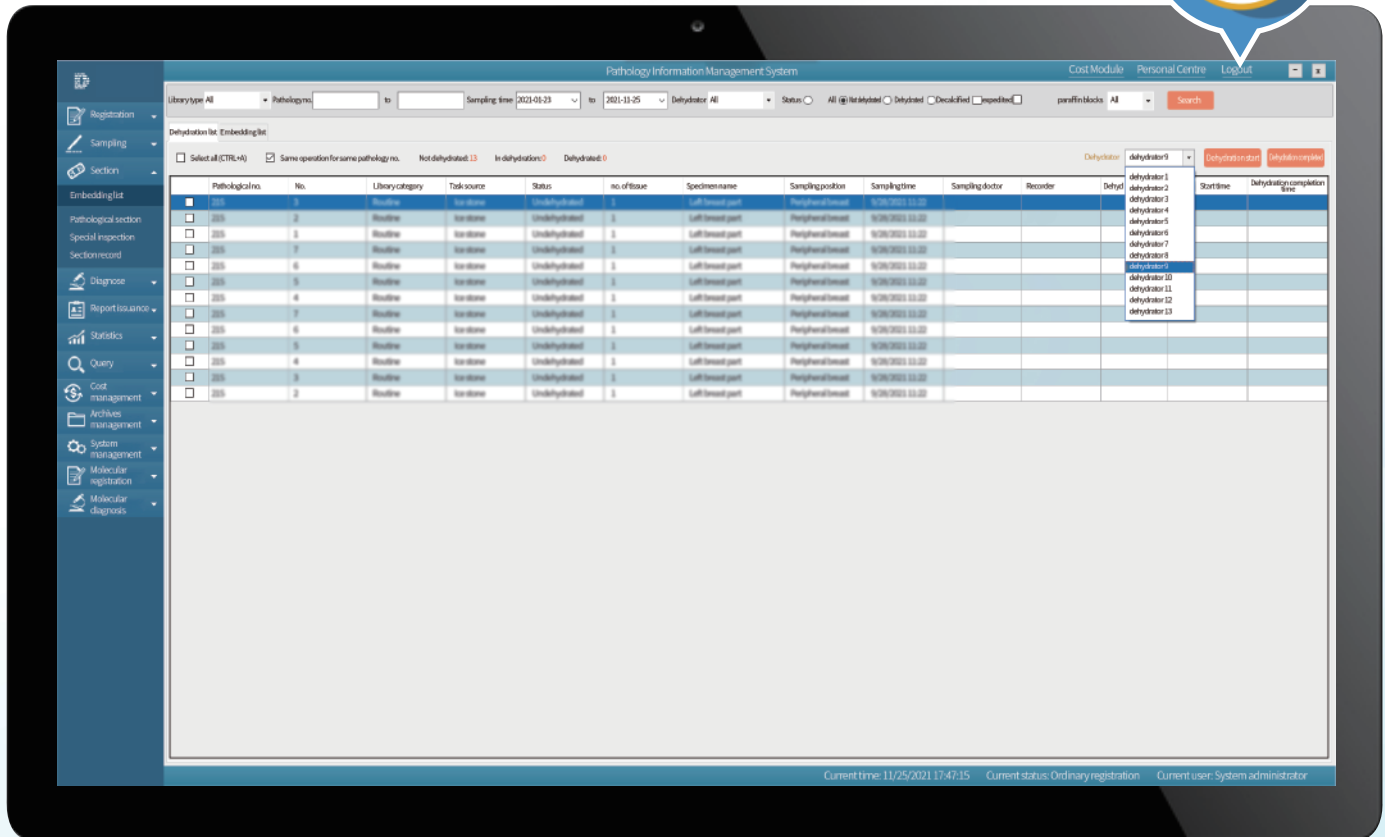
Specimen	Serial no.	Task Source	Routine	Status	Sampling time	Recorder	Remarks	Edit	Delete
Gastric antrum	210	Empty	Gastric antrum	Shelved	2019/02/10				

Sampling & Describing Workstation>>>



# ◆ Tissue Preprocessing Workstation

Tissue Preprocessing Workstation>>>



01

The dehydration workstation is associated with the equipment, monitors the running status of the dehydrator in real time, and alarms the abnormal situation by SMS.

02

It is able to track the dehydration status of each sample, including information on start time, running procedure, end time, operating technician, etc.

03

Moreover, it provides tissue pre-treatment quality control statistics.



## ◆ Embedding Workstation

01

The system automatically displays the list of specimens to be embedded for technicians to check when embedding.

02

The system automatically calculates the number of paraffin blocks, operator information and specific operation time

03

Remind the embedding precautions of special specimens (small tissues, biopsy tissues, skin, mucous membranes, etc.).

04

Record all kinds of abnormal conditions such as "thread ends" for quality control evaluation and statistics.

Pathology Information Management System

Cost Module Personal Centre Logout

Library type: All Pathology no. Embedding time: Dehydration completion date: 01-25-2021 to 01-25-2021 Status: All Unembedded Embedded Incubated Reported error Embedded: All Search

Unembedded list Embedded list

Pathological no.	Library category	Task source	Status	no. of tissue	Specimen name	Sampling position	Sampling time
20180127	5	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	2	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	3	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	7	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	7	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	5	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	5	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	7	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	5	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	6	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	7	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	5	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	6	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	3	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38

Embedded list

Pathological no.	Library category	Task source	Status	no. of tissue	Specimen name	Sampling position	Sampling time
20180127	5	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
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20180127	2	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	3	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	7	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	5	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	5	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	7	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	7	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38
20180127	6	Routine	Not done	1	Luff tissue part	Peripheral tissue	01-23-2021 09:38

Current time: 11/25/2021 17:47:35 Current status: Ordinary registration Current user: System administrator

Embedding Workstation >>>



## ◆ Sectioning Workstation

Sectioning Workstation >>>



01

The system automatically displays the list of specimens to be sectioned and the doctor's orders records of re-cutting, deep depth, immunohistochemistry and special staining.

02

Interface will display information about the wax block when the barcode is scanned, including the total number of paraffin blocks for the pathology information, the current number of wax blocks, the number of sections for the block and the current number of sections.

03

A QC evaluation can be performed on the embedding box and the data from the evaluation will be entered into the final QC statistics.

04

Support the combination and sectioning of multi-paraffin blocks.

05

It automatically displays the total number of slicing tasks for the day, the number of sections sliced by the current user, etc., and records the technician workload for the section session.



## ◆ Staining Workstation

01

The system automatically loads all the information of the film to be stained.

02

Specially stained data can be displayed for specific items if available.

03

It automatically displays the total unstained quantity, the total unstained quantity for today, the total stained quantity and the total stained quantity for today.

04

Support connection with automatic staining machine, and store batch staining work records informationally.

Pathology Information Management System

Cost Module Personal Centre Logout

Single pathology no.  One-day  One-week  One-month  Custom Registration time: 1/01/2021 to 11/25/2021 Library type All Sampling Doctor All Expedited report  Search

Biopsy section Cytology section Stain management

List of unsectioned patients

Select All (CTRL+A) Total 0 Section 1 Primary Care Doctor System Administrator

Pathology no.	Patient name	No. of sections	Time of sectioning	Library type	Report type
20210101	...	...	...	...	...
20210102	...	...	...	...	...
20210103	...	...	...	...	...
20210104	...	...	...	...	...
20210105	...	...	...	...	...
20210106	...	...	...	...	...
20210107	...	...	...	...	...
20210108	...	...	...	...	...
20210109	...	...	...	...	...
20210110	...	...	...	...	...
20210111	...	...	...	...	...
20210112	...	...	...	...	...
20210113	...	...	...	...	...
20210114	...	...	...	...	...
20210115	...	...	...	...	...
20210116	...	...	...	...	...
20210117	...	...	...	...	...
20210118	...	...	...	...	...
20210119	...	...	...	...	...
20210120	...	...	...	...	...
20210121	...	...	...	...	...
20210122	...	...	...	...	...
20210123	...	...	...	...	...
20210124	...	...	...	...	...
20210125	...	...	...	...	...
20210126	...	...	...	...	...
20210127	...	...	...	...	...
20210128	...	...	...	...	...
20210129	...	...	...	...	...
20210130	...	...	...	...	...

List of patients to be submitted

Select All (CTRL+A) Total 251 Section 303 Primary Care Doctor All

Pathology no.	Patient name	Primary care doctor	no. of sections	Library type	Report type	Age	Section doctor
20210101	...	...	...	...	...	...	...
20210102	...	...	...	...	...	...	...
20210103	...	...	...	...	...	...	...
20210104	...	...	...	...	...	...	...
20210105	...	...	...	...	...	...	...
20210106	...	...	...	...	...	...	...
20210107	...	...	...	...	...	...	...
20210108	...	...	...	...	...	...	...
20210109	...	...	...	...	...	...	...
20210110	...	...	...	...	...	...	...
20210111	...	...	...	...	...	...	...
20210112	...	...	...	...	...	...	...
20210113	...	...	...	...	...	...	...
20210114	...	...	...	...	...	...	...
20210115	...	...	...	...	...	...	...
20210116	...	...	...	...	...	...	...
20210117	...	...	...	...	...	...	...
20210118	...	...	...	...	...	...	...
20210119	...	...	...	...	...	...	...
20210120	...	...	...	...	...	...	...
20210121	...	...	...	...	...	...	...
20210122	...	...	...	...	...	...	...
20210123	...	...	...	...	...	...	...
20210124	...	...	...	...	...	...	...
20210125	...	...	...	...	...	...	...
20210126	...	...	...	...	...	...	...
20210127	...	...	...	...	...	...	...
20210128	...	...	...	...	...	...	...
20210129	...	...	...	...	...	...	...
20210130	...	...	...	...	...	...	...

Library type 251 Library type  Library type

Library type 319 Library type  Library type

Current time: 11/25/2021 17:47:15 Current status: Ordinary registration Current user: System administrator

Staining Workstation >>>



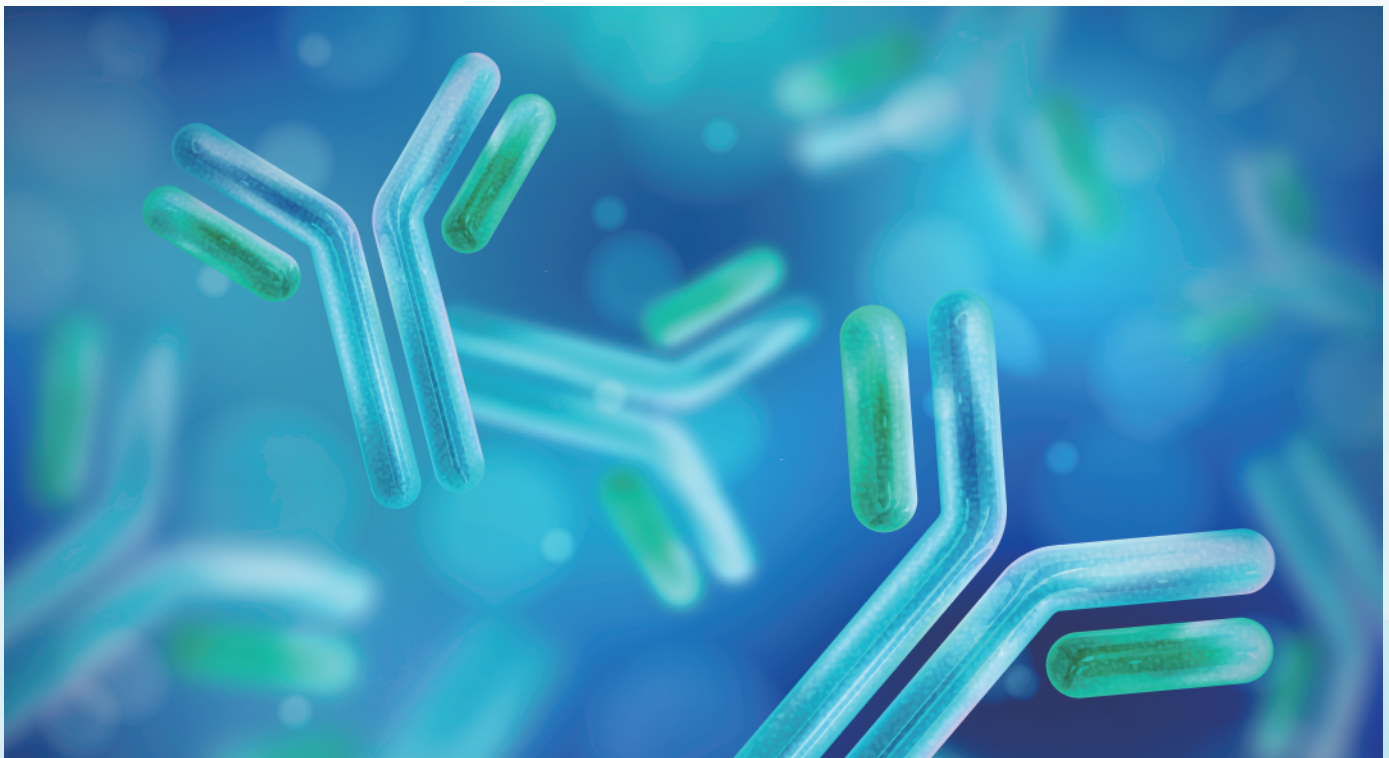




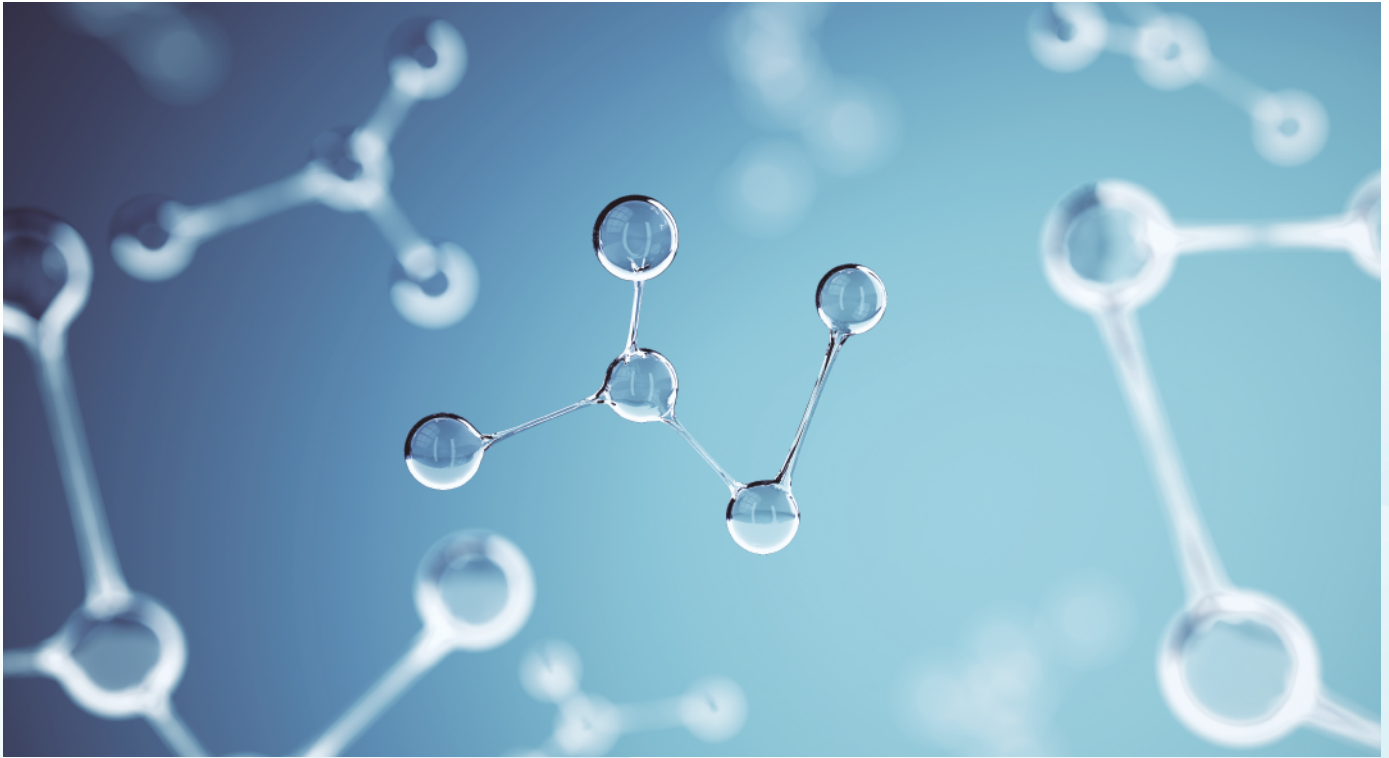
## ◆ Immunohistochemical Workstation

It is not only a transfer station to receive doctor's orders, but also a management station to carry out the internal quality control of immunohistochemistry informatics.

- 01 Antibody management: Establish electronic antibody library to empower internal quality control standard management.
- 02 The corresponding protocols for antibodies are pre-set to ensure that the actual operation of immunohistochemistry is standardized.
- 03 Instrument Management & Task Assignment.
- 04 Establish a positive control library, and record the pathological number, storage quantity and date of positive control tissues.
- 05 Set up quality assessment, including laboratory self-evaluation and pathologist quality feedback.



## ◆ Molecular Pathology Workstation



- 01 Different diagnostic interfaces will be automatically displayed according to the doctor's advice items corresponding to molecular pathology.
- 02 Provide a separate field for molecular pathology number to facilitate statistics on molecular pathology data, which can be combined to query or count cases based on multiple criteria.
- 03 Realize the quality control of molecular pathology samples and process.
- 04 Integrate various molecular detection platforms, and integrate samples and data.
- 05 Precipitation mining and reuse of structural report data of molecular pathology.



## ◆ Cytopathology Workstation

01

Clear classification: It provides diagnosis and reporting functions of general cytology, gynecological and non-gynecological liquid-based cytology.

02

It will automatically identify positive cases and provide statistics on the positivity rate according to the definition.

03

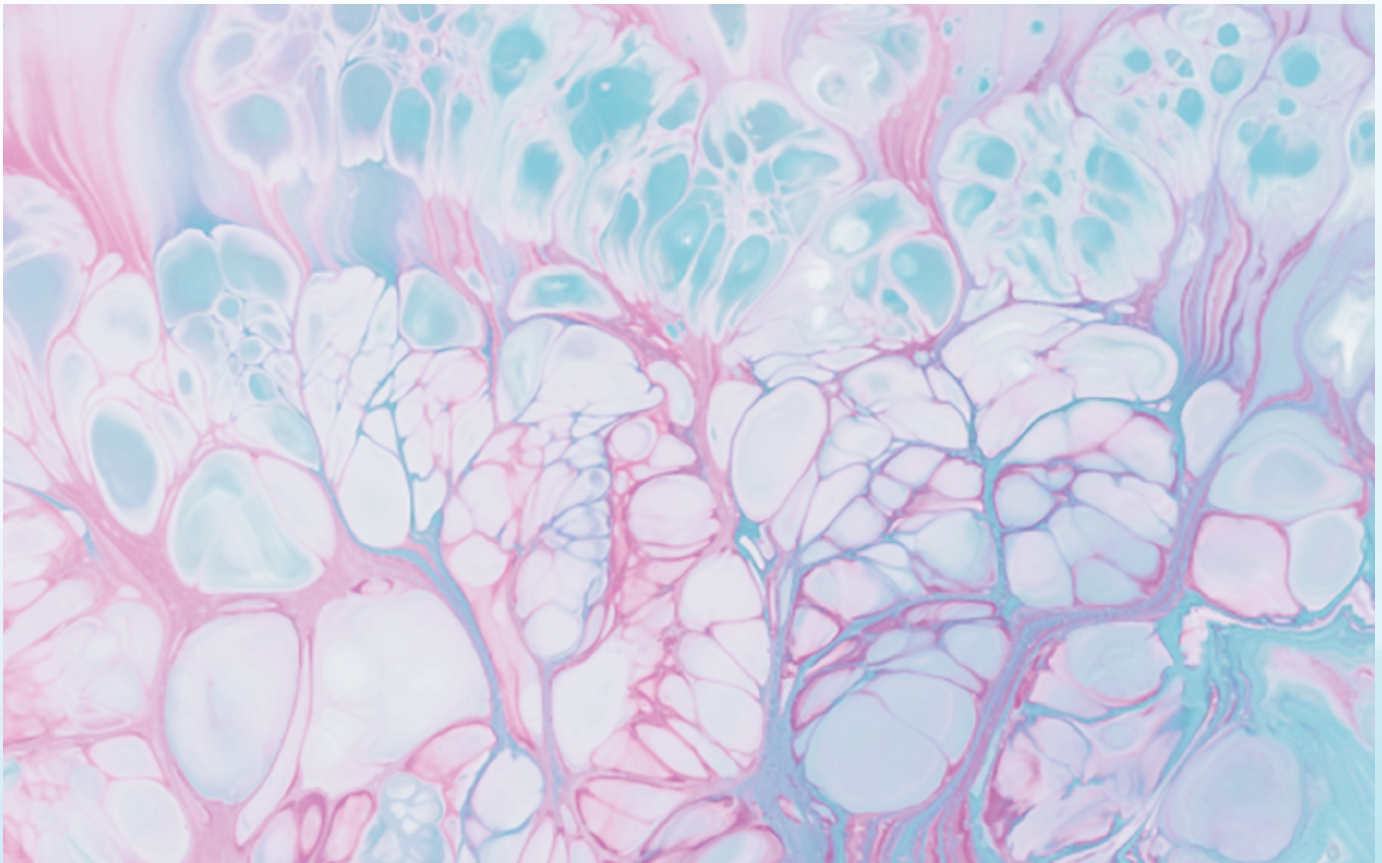
TCT and histology report positive diagnostic compliance statistics enables you to count the compliance in various positive TCT cases and histology reports.

04

Positive age distribution statistics of TCT that numbers and positive rate of various types of positive patients are counted by age group.

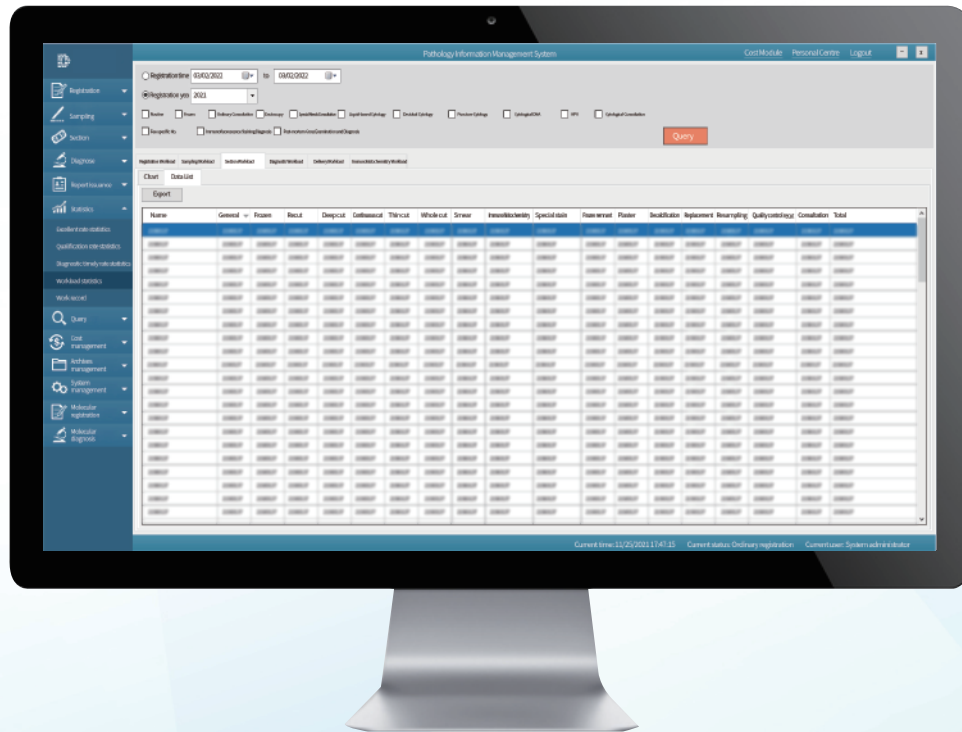
05

Internal medical advice can be requested: immunohistochemistry, special stains, molecular pathology, re-section, etc.





## ◆ Pathology Quality Control and Data Management System Based on ISO15189



01

13 statistical indicators of medical quality control in pathology specialty are fully covered in real time.

02

Automatic tracking and recording of each working site can change the bottleneck that samples are difficult to trace and problems are difficult to query, and realize the uniqueness and traceability of samples. Ensure the accuracy and timeliness of records.

03

Support a variety of query methods, such as using pathology number and other information, and install workstations at any time to query the current circulation position of samples, historical circulation operation records, operators and specific operation time.

04

It provides inquiry on quality issues, total workload, workload of each position, etc. in terms of time dimension statistics.

05

It can track the real-time flow position of samples and count the TAT turnaround time of each process.

06

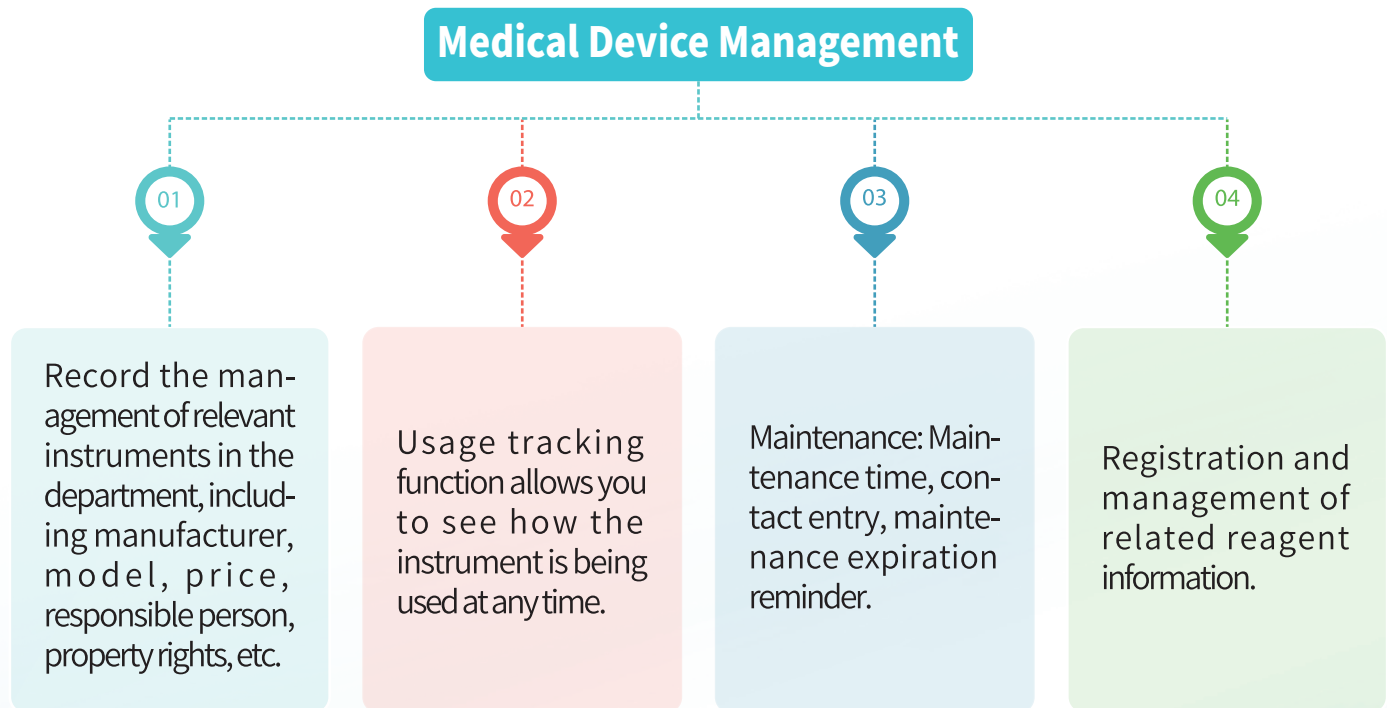
Error and accident registration can record the causes, rectification results and treatment methods of errors and accidents in departments.

03

More dimensions of quality control statistics: excellent and good rate of sampling, excellent and good rate of embedding, statistics of communication events with clinic, coincidence rate of liquid-based diagnosis, number of malignant tumors, cytological positive rate, etc.



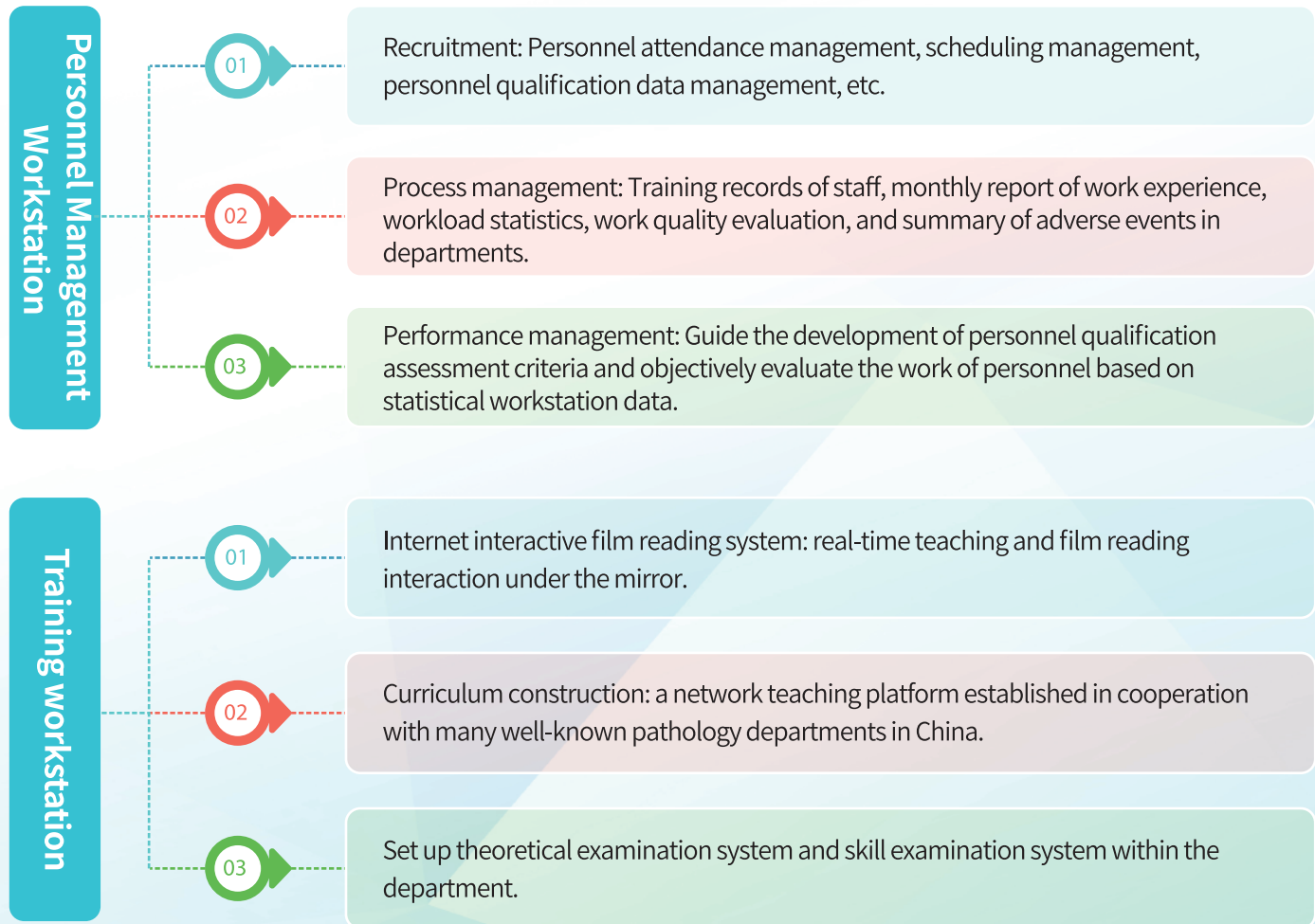
## ◆ Medical Device Management Workstation

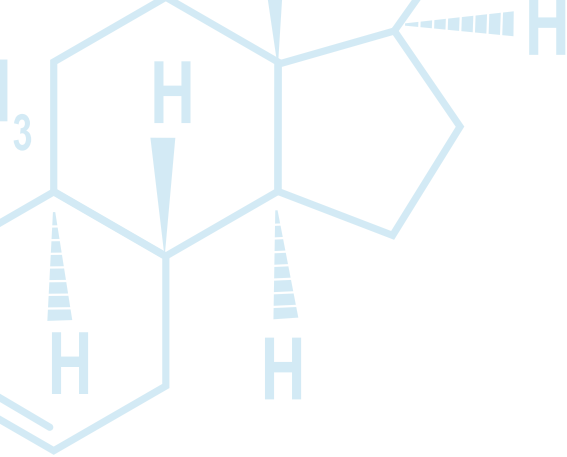


## Reagent management

- 01** Pathological reagent management **by** : RFID electronic identification, which realizes informatization from ordering, warehousing, outbound, inventory and other links.
- 02** Export the number of items in each round of experiments and calculate the amount of administered reagents based on the number of items.
- 03** Remind laboratory staff of quality control management with different batches of reagents, entering the warehouse at different times.
- 04** Reagent Expiration Date, Inventory Management support statistics and automatic early warning.
- 05** Storage environment management: record of temperature and humidity data in storage rooms and refrigerators, support for temperature and humidity history data query and abnormal alarm.
- 06** Support multi-angle cost analysis by professional group.

## ◆ Personnel Standardized Training Management and Assessment Workstation





## Digital Innovation Solution of Pathology department


- Comprehensive coverage of the day-to-day management, work, teaching and research of the Department of Pathology
- Strengthen the development of the synergistic quality of the Department of Pathology in Medicine, Teaching and Research


### Manufacturer

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